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HENRY V. POOR, Editor.

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PRINCIPAL CONTENTS.

Railroads in Kentucky.....	417
Louisville and Frankfort Railroad.....	418
Railroads in South Carolina.....	419
Eaton and Hamilton Railroad.....	419
Atlantic and St. Lawrence Railroad.....	419
Ogdensburgh Railroad.....	419
Railroad from Pittsburgh to Steubenville.....	420
Columbus, Piqua and Indiana Railroad.....	420
Androscoggin and Kennebec Railroad.....	420
Lackawanna and Western Railroad.....	420
Indianapolis and Bellefontaine Railroad.....	420
Baltimore and Ohio Railroad.....	420
Indiana Central Railroad.....	421
Hempfield Railroad.....	421
Rouse's Point Bridge.....	421
Akron Branch Railroad.....	422
Pacific Railroad in England.....	422
Pacific Railroad of Missouri.....	423
Cattawissa Railroad.....	423
Stock and Money Market.....	425

American Railroad Journal.

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Saturday, July 5, 1851.

LETTER I.

Kentucky, June 16, 1851.

TO THE EDITOR OF THE R. R. JOURNAL:

Dear Sir—As I see but little said in the columns of your valuable Journal about Kentucky and her railroads, and the mode of raising means to build them, I have taken the liberty of troubling you with a sketch of them.

Kentucky has for a long time been asleep to her own interests, and has allowed her younger sister States to pass her in the great internal improvement race; so far, that the friends of internal improvements within her limits had almost despaired of her ever awakening to her own true interests. She has never yet been characterised as a railroad State, but the time is fast coming when she will yet be known as among the foremost.

Her citizens were among the first in the United States to undertake the construction of a railway. They commenced almost simultaneously with the Baltimore and Ohio road, the construction of the Lexington and Frankfort railroad, 28 miles long.

The citizens of Lexington, "the Athens (then) of the West," commenced and completed it at great cost. The result was a most disastrous one to Kentucky, for the stockholders in that road, many of them the leading men in the State, lost all the money they invested. They never, I believe, received one cent in return; and as many of the private citizens stepped forward, subscribed and paid their \$20,000 and \$30,000 each, and lost it all—the result can readily be understood. It gave almost a death blow to individual aid to internal improvements throughout the entire State. The cause of such a disastrous operation was principally owing to a want of knowledge in the construction of railroads at that early period of their history. The road was faulty in its location and construction. It was cursed with an inclined plane at Frankfort, and was laid with a light flat rail. The great secret, however, of its failure was, that there was not business enough then between Frankfort and Lexington, with no further connections, to support so short a road, constructed at so great a cost. The result was, that the road, after a few years, went to decay; and for a time the business upon it was almost entirely suspended. This was the case, when, about two years or so ago, a new company was organised, who purchased the old road from the State (into whose hands it had fallen), constructed four or five miles of new road at great expense, to avoid the plane at Frankfort, re-laid the entire road with a heavy rail at a total cost of \$650,000, and it is now doing a fair business.

The great losses suffered in the construction of this road were a complete damper to the construction of any more railroads in Kentucky; for people made up their minds, that if a railroad from Lexington to Frankfort would not pay, why, a railroad in any other part of Kentucky would meet with the same result. They had tried the experiment, and were satisfied.

The next experiment, was the construction of the Slack Water Improvements. The State took this matter in hand, and prosecuted it with vigor, until some two or three rivers were partially slackwatered, when the crash came on, and the State suspended all further operations, never to be resumed. The State spent in this kind of improvement several millions, and partially succeeded in making the Green, Barren, and Kentucky rivers navigable.

The result was, that the investment proved a bad one, as the rivers have never as yet done business enough to keep the locks and dams in repair, and all the money invested in these works is nearly if not quite a dead loss. So ended experiment No. 2 in Kentucky. This second result fully satisfied the citizens of the State (if we except a few) that Kentucky was a State in which it was no use to undertake internal improvements, and they were perfectly satisfied to travel on horseback; for this mode of travelling, if not very cheap or rapid, certainly required no very great outlay of money, and they were at least safe in this respect.

While this latter experiment was going forward, the State also appropriated largely to turnpikes (Macadamised). This system of improvements was extended throughout the State, and with but few exceptions was also a bad investment, as but few if any roads of this nature paid fair dividends upon their cost. The result of this, experiment No. 3, "was a settler," and Kentucky for several years was a finished State—at all events, it was a fixed fact in the minds of a great majority of her citizens, that nothing in the shape of improvement within her bounds would pay; and they therefore, when they made their new constitution, inserted a clause, which entirely prohibited the State from advancing money or credit to any improvement.

Such was the state of things in Kentucky, when the citizens of Louisville (a city, by-the-bye, that possesses more natural advantages than any city west of the mountains,) awoke to the consciousness that railways *might* be of some service to their city, and they set about the construction of the railroad to Frankfort, 65 miles. It was for a long time, however, hard work—for individuals would not subscribe—until the citizens voted upon themselves a tax of \$500,000, which was paid to the last cent. This secured the construction of the road, although the city council has from time to time advanced its credit to aid it; and it is now in successful operation through to the Kentucky river, awaiting the completion of a suspension bridge over the river, which will soon be completed, to allow the cars to pass to Frankfort and Lexington. The means for this road were raised almost entirely in Louisville—for I am informed that less than \$40,000 was all the money ever subscribed along the line of road. The private citizens yet remembered with vividness the fate of the private subscriptions to the Lex-

ington and Frankfort road, and would not subscribe to build a railroad.

The stock of the company has been from the commencement of the work much depreciated in value, and a few months since it could be got for 50 to 60. The completion of the road to the Kentucky river, and the large business it is even now doing, although unfinished, some \$12,000 to \$15,000 per month, has opened the eyes of the Kentuckians to the probability that a railroad, if properly constructed, and judiciously managed, may pay in Kentucky—more particularly as the stock has advanced from 50 and 60 to 80 and 90; and it is now confidently believed, that the road when completed will pay not less than eight per cent stock. This is the commencement of a new era in Kentucky, and thus ends experiment 4—successfully. More in my next.

Yours, LOCOMOTIVE.

LETTER II.

Kentucky, June 23d, 1851.

TO THE EDITOR OF THE R. R. JOURNAL:

Dear Sir—In my last I stated that experiment 4 had proved successful. Since then I have seen a report of the operations of the road for the past year, and the result is one highly satisfactory to all parties, and fully verifies my prediction that the road will pay 8 per cent. when completed. During the construction of the railroad from Louisville to Lexington, the citizens of Maysville became alive to the importance of a railroad to their city from Lexington, a distance of about 70 miles. They procured a charter in the spring of 1850; engaged an engineer, organised the company by a vote of \$150,000 to the stock of the road by the city, and paid for the expenses of the necessary surveys by direct taxation. The subscription of \$150,000 by the city formed a nucleus around which they proceeded to gather means. The surveys proved the practicability of a road; and the directors and officers of the company have prosecuted every advantage by a policy and energy rarely equalled in the West, until they have, as I am informed, located their entire road to Lexington. They have also placed it under contract for its entire length, to be completed in the fall of '53, and intend breaking ground on the 4th of July; and they have also secured subscriptions to their stock to the amount of nearly \$1,250,000. The entire road is to cost 1½ millions, so that the completion of this road is secured.

A railroad from Covington, opposite Cincinnati, towards Lexington, was also projected about the same time; and it is, I believe, under contract to Paris, 77 miles, where it intersects the Maysville and Lexington road. The Covington company have exhibited great energy and perseverance in urging their road forward, and have, as I observe by the statements of the board in the public journals, some 7 or \$800,000 subscribed towards building it, and the completion of it is, I think, placed beyond a doubt. These two roads are all that are at present in course of actual construction in the State.

The citizens of Danville and the beautiful country around it, lying 35 miles southwest of Lexington and west of the Kentucky river, have procured a charter for a road from Lexington to Danville and they are busily engaged raising the necessary means to construct it. Their efforts will, I doubt not, prove successful. It is proposed, in case they can succeed in building their road, to eventually extend it southwest to Nashville, or southeasterly

to Knoxville, Tennessee. They have as yet not organised a company, nor made surveys, although they have some \$400,000 subscribed to the road; but I am informed they will soon organise, and have the surveys under way. The crossing of the cliffs of the Kentucky river I hear spoken of as an objection to this road; and a wire suspension bridge of 6 to 800 feet span, elevated some 800 feet above the river, is spoken of. The surveys however, it is hoped, may develop some more economical mode of crossing this formidable barrier.—This road, when completed, will form a most important extension of the Maysville and Covington roads, but will be of great injury to the interest of Louisville, as it will divert the trade of an immense section of interior Kentucky to other points. The probable loss of this important trade to Louisville, has stirred up a warm feeling in that city, and a road is now spoken of to diverge from the Louisville and Frankfort road, a few miles out from Louisville, and to pass to Shelbyville, and thence on to Harrodsburg Springs and Danville, a distance of 45 miles, and eventually to Knoxville. A company is already organised for this purpose; and subscriptions have thus far been obtained to the amount of about \$150,000 towards building it; and it is confidently hoped by the friends of that road, that Louisville and the section of country interested will furnish the necessary means to construct it.

A road is also spoken of to run from Lexington to Georgetown, and thence to Cyntiana or Falmouth, some 25 or 30 miles, where it will connect with the Covington road. An independent charter has not yet been obtained, but will probably be secured this winter if necessary—although the friends of this road contend that the charter of the Covington company permits the construction of a branch from Falmouth or Cyntiana to Lexington via Georgetown. The construction of this road is however problematical, as the citizens of Louisville and Maysville are, I understand, about urging the propriety of constructing a railroad from Frankfort to Georgetown, and then to Paris, where it will intersect with the Maysville road, and also with the Covington road—thus giving the citizens of Georgetown, and the supplies of that rich and fertile section of country, an outlet in three directions, instead of one, as proposed by the branch of the Covington road. That the connection will be formed I think highly probable, as the distance is only 35 miles, and the construction of it would secure to Louisville the trade of a most valuable section of country, that will otherwise be lost to her entirely. It will also shorten the distance from Louisville to Maysville some 15 miles; and I am informed that Louisville is alive to the importance of it.

A charter was obtained last winter for a railroad from Maysville to the Virginia line, at the mouth of the Big Sandy, a distance of about 75 or 80 miles. This road will I think ultimately be constructed; it will certainly be built if the State of Virginia constructs her great central road to the Ohio. The citizens of this part of Kentucky are looking with great anxiety to the action of Virginia in this matter. The construction of the central road from Richmond to Big Sandy, will most assuredly be the means of building the road from Maysville to Big Sandy; and will make the cities of Richmond and Norfolk the importing and exporting ports for all of Kentucky, of western Virginia, of southern Ohio and Indiana, and of all Tennessee. This cannot but be the case, as Rich-

mond is the nearest tide water city to the territory above named by some 2 or 300 miles; and in this age of short distances and speedy transit, this trifle of 2 or 300 miles becomes a matter that will build or ruin a city. I understand that the citizens of Maysville, with characteristic energy, are about raising the means necessary to prosecute the surveys for the road; and it may be set down as a certainty that the road will be built—more particularly, as about 45 miles from Maysville towards Big Sandy will give a railway connection via the Scioto and Hocking Valley road, now under construction, with all of the great lines now constructing through Ohio. The construction of a railway from Maysville to the Big Sandy is also of great importance to Baltimore—as it will permit a person residing in any of the slave States southwest to pass entirely to that city with his servants; and it will also offer to Baltimore the shortest and cheapest connection with Kentucky.

A charter was also obtained last winter for a railroad from Lexington via Owingsville to the Virginia line, at the mouth of Big Sandy; the distance is about 135 miles; and as the country through which it will pass is extremely poor, and very much broken, there is not much hope of its being early constructed—more particularly as it has such a powerful rival in the Lexington and Maysville and Big Sandy roads.

A charter was also obtained some few years since for a railroad from Nashville to Henderson. This is lying at present entirely quiet, and but little hopes are entertained of its being constructed. A charter was obtained likewise for a road from Bowling Green to Nashville, and I am informed that a company has been organised; but I do not know what are the probabilities of the work being carried forward to completion.

The Mobile and Ohio railroad company have a charter in this State, allowing them to build their road from the Tennessee line to Columbus on the Mississippi, or to a point opposite Cairo; and it is I believe conceded that this road will be built.

These are all the present proposed roads in Kentucky; except the great road from Louisville to Nashville and its branches. The distance to Nashville is about 180 miles; and a branch to Columbus, where it intersects the Mobile and Ohio road, is about 200 miles more—thus making about 400 miles in all under one charter.

This is the most important road in the southwest, and will surely be constructed at an early day—as Louisville has signified already her willingness to subscribe one million towards its construction. Thus much for the roads in progress and proposed. In my next I will give you a description of the importance and connections of some of the roads.

Yours, LOCOMOTIVE.

Kentucky.

Louisville and Frankfort Railroad.—We find in the Louisville Courier an abstract of the third annual report of this company, submitted to a meeting of the stockholders held on the 2d ult. The affairs of the company, says the Courier, seem to have been managed with the strictest economy, and with a commendable spirit to promote the interest of the stockholders, in both of which respects the president, directors and chief engineer, seem to have been pre-eminently successful. The road is completed to Frankfort, over which two trains of passenger cars pass every morning and afternoon, between Louisville and the seat of government, each way.

months, over and above the amount required for a fair dividend.

The St. John's railroad to Rouse's Point will be opened in July, which will give Ogdensburg a railroad communication with Montreal, and send the travel between the Canadas to the Ogdensburg road. A railroad, also, is now in progress from Bytown, on the Ottawa, to Prescott, opposite Ogdensburg. This will contribute largely to the income of the Ogdensburg road. Of the whole earnings in April, less than \$1,000 were for the transportation of western produce that arrived at Ogdensburg last autumn. The directors speak also of having trusted to their local business, this season, in consequence of the low prices of through freight, and their lack of motive power. They say—

The addition of six locomotives, soon to be delivered, will give us sufficient force to increase our western freights, whenever desirable, without the danger of interference with the through and passenger business, and the continuance of the gravel trains. It has been thought more for the interest of the road to establish a character for promptness and despatch, than to be blocked up by an overflow of western flour, which pays but little profit, and which, with a limited motive power, would most seriously interfere with our great local trade.

The freight earnings of this road were greater in the month of April than the freight earnings of the Michigan Central road in April of last year, although that road is one hundred miles longer than this, and is considered one of the most highly favored in the country. Our earnings from freight are believed to be now greater than the Western railroad between Albany and Boston yielded after it had been two years in operation, although that road is nearly one third longer than this, cost ten millions dollars, and has been one of the most successful freight roads ever built.

The present equipment of the Ogdensburg railroad consists of 20 locomotives, with tenders, 16 passenger and 401 freight cars, 188 gravel cars, 4 postoffice and baggage cars, and 2 large snow ploughs.

Railroad from Pittsburg to Steubenville.

We are pleased to learn that a bold and decided movement is about to be made between this city and Steubenville, with the view of supplying this link in the great railroad chain from Philadelphia and Pittsburg to Columbus, Cincinnati and St. Louis. A meeting of the incorporators will be held on Thursday next at the Half-way house, on the Steubenville turnpike, when Capt. Chas. Naylor, of this city, will be present, and submit some important facts to the consideration of the meeting. The farmers of Washington and Allegheny counties are determined that this road shall be built without delay; and many of our enterprising citizens have promised their money and their influence to assist in pushing the project forward to final completion.—*Pittsburgh Post*.

Ohio.

Columbus, Piqua and Indiana Railroad.—The notice we are able to give of the progress of this road is highly favorable and encouraging to all interested in its advancement.

We learn that at a meeting of the directors, held at Urbana on the 16th ult., the line between St. Paris and this city, of 56 miles, was determined upon for location, and is now under preparation for letting by the 18th of July next. By that time the entire line from the Indiana State line to our capital will be in readiness for contracting. Active measures are taken to complete the connection of this road with the Indianapolis and Bellefontaine road, so that at an early day we may look for a sure, speedy and direct mode of transit between the capitals of Ohio and Indiana. We are also informed that the company lately effected an arrangement with one of our citizens, by which they have secured for the road, if needed, a tract of land contiguous to the city, and favorably adapted for freight depots, engine houses, etc. In addition to this,

\$50,000 was subscribed at the meeting towards its stock.

In view of the district of country through which the route of this road lays—the towns located upon it, and the important connection which it forms with the canal and other railroads, a large way and through traffic is secured for it. Its prominent position as a link in a grand chain extending from the Ohio to the Mississippi river, its consequent office in collecting, carrying and disbursing the products of the far west, all constitute it a constituent part of one of the most important roads of the west.

Under the direction of A. G. Conover, Esq., the chief engineer, we have every assurance that the road will be in no way inferior to any other in the State, as to the character of its construction: and with the ample means in the hands of the directory, we have no doubt of its speedy completion.—*State Journal*.

Maine.

Androscoggin and Kennebec Railroad.—The annual meeting of the stockholders of this road was held at Lewiston on the 1st instant. The following is a list of the directors chosen:

Wm. Goodenow, of Portland; Edward Crane, Boston; Wm. C. Taber, New Bedford; Anson P. Morrill, Readfield; Samuel Taylor, Jr., Fairfield; R. B. Dunn, Waterville; Benjamin E. Bates, Boston.

A resolve was passed that the directors be authorized to offer to the Atlantic and St. Lawrence railroad company the same terms that were last offered by the committee—31 cents for passengers, and 33 cents per ton for freight from the Junction to Portland, 27 miles—and if not acceded to within 60 days, then a committee (which was raised) was instructed to procure signatures to a petition for a new road to connect with the York and Cumberland railroad at Gorham or Saccarappa; so as to take the through travel entirely from Portland.

An unfortunate misunderstanding has for a long time existed between the above companies, as to the amount that should be allowed the A. & K. for freight and passengers delivered at the junction. Without presuming to know anything of the merits of the case, we can see no reason in the rejection by the Androscoggin and Kennebec company of the proposition of the Atlantic and St. Lawrence to submit their difference to the arbitration of indifferent persons. To differ in opinion does not imply anything censurable; but in business matters, to refuse to submit differences to the decision of an impartial umpire, certainly raises the presumption that the party refusing has no confidence in his case. We hope that the Androscoggin and Kennebec company will not build their proposed extension, as it will add a still greater weight to the burden that oppresses them. Their road has already cost a great deal too much, and the extension would only add to its debt, without materially increasing its receipts.

Pennsylvania.

Lackawana and Western Railroad.—This road is to be opened for traffic on the 1st of September next. It extends from the Lackawana coal mines to the Erie road at Great Bend, 48 miles, and is of the same gauge as the Erie. It will add largely to the business of the Erie railroad, and will supply the central and western portions of this State with coal at a very low cost.

If, as is contemplated, this road should be extended to the water gap, to meet the Morris and Essex, now in progress to that point, a double track would be formed over the most difficult and dangerous part of the Erie railroad; and by the completion of

the Hornellsville and Conhocton Valley roads, nearly the whole distance to Lake Erie.

Land Damages in Ohio.

Land damages are settled in a very sensible and summary way in Ohio. The Central railroad company having occasion to take a lot, containing about 14½ acres, and being a part of a large tract belonging to the estate of John McIntire, applied for a commission to ascertain damages. The commission (appointed by court) decided that the road, and the location of the depot grounds, would benefit the remainder of the land to a greater extent than the value of that taken, and appraised no damage; so that the company got 14½ acres for nothing.

In another instance, the company took lands to the value of \$3,000; but as the owner was benefited to the amount of \$1,500 by the road, the commission allowed him only \$1,500, or one half the value of the land.

We see nothing wrong in this; there certainly can be no reason in paying a man \$1,000 for taking his land for a railroad, when the very act adds \$10,000 to the value of what remains. The Hudson River road paid something like \$500,000 for right of way between New York and Poughkeepsie; while the persons to whom this was paid were benefited by the road to an amount equal to twenty times that sum.

Indiana.

Indianapolis and Bellefontaine Railroad.—The Madison, Ia., Tribune, of the 10th ult., states that the opening of the Indianapolis and Bellefontaine railroad to Anderson, the county seat of Madison county, being a distance of thirty-six miles, will be celebrated on Thursday, the 26th inst., on which occasion addresses will be delivered by Governor Wright, Gov. Wallace, Senator Bright, Caleb B. Smith, and others.

The Baltimore and Ohio Railroad.

The accounts from along the whole line of the railroad, now in progress of being constructed from Cumberland to the Ohio river, are most encouraging, and there is now no longer reason to fear that it will not be completed to the several points at the time designated by the chief engineer. The following table designates the several points, and the times when the roads will be completed to them:—

Piedmont.....	July 4, 1851.
Cheat River.....	November 1, 1851.
Tygart's Valley Bridge,	February 1, 1852.
Fairmont.....	April 1, 1852.
Wheeling.....	January 1, 1853.

At the last monthly meeting of the board of directors, Mr. Swann, the President, announced that the road would be ready to be opened to Piedmont on the 4th of July, and he was authorized to make arrangements for an excursion about that time, to that point.

When the road is completed to Tygart's Valley Bridge, which it will be next February, a line of stages will run from that place by the Northwest Turnpike, to Parkersburg, (Va.) on the Ohio river. This will shorten the distance materially in Cincinnati, and all points south and west of that city, and passengers will pass between Baltimore and Cincinnati in something like a day less time than now. When completed to Wheeling, the journey from Baltimore to Cincinnati may, with the use of the other railroads which will then be completed on the Ohio side of the river, be made in something like twenty-four hours! It will not be long thereafter when the railroad will be completed to the Mississippi, and then the traveller will be carried from Baltimore to St. Louis, it may be in forty-eight hours. To do this, however, it will be essential that the branch road from Tygart's Valley Bridge to Parkersburg, should be made. In view of the time, when the law of Virginia contemplates that road to be commenced to be made, it is every

way proper that the people of Baltimore should at once begin to prepare to take their part in the enterprise, so that when it is commenced no time should be lost in its earliest possible completion.—*Baltimore Patriot*.

Massachusetts.

Amherst and Belchertown Railroad.—A meeting of the Amherst and Belchertown railroad company, was held in Amherst on the 30th ult., for the purpose of organization and other preliminary measures. The meeting was large and spirited. Seven directors were chosen as follows:—Hon. Edward Dickinson, Hon. Ihamar Conkey, and Luke Sweetser, Esq. of Amherst; Col. T. W. Williams and A. C. Lippert, Esq., of New-London; Joseph Brown, Esq., of Palmer, and Hon. Myron Lawrence, of Belchertown. By-laws were adopted, and a proposition made by the New London company, to run the road when built, and pay therefor one half the gross receipts.

Genesee Valley Canal.

We learn that the water was let into the Genesee Valley Canal from the Shaker settlement, in Groveland, to Oramel, 36 miles, on Saturday, the 14th ult. The people of Nunda, Portage, and the northern towns of Allegany county are to be largely benefited by this new thoroughfare. Large amounts of lumber, shingles and staves, which had been deposited upon the banks of the canal in the town of Canadea and Belfast, in anticipation of the opening of this section, are now being crowded to market. We hope the day is not far distant when the Packet's bugle will be heard reverberating through the valleys of the Cattaraugus. Already we see in the Allegany papers, an advertisement of the "New York and Olean Line" of Canal boats.

Indiana.

Indiana Central Railroad.—Our readers are perhaps aware that the last legislature separated the Terre Haute and Richmond railroad east of this city from that part west, and that the name of Indiana Central Railway was given to the eastern division of the road extending from the state line east of Richmond to this city. Soon after the passage of the law referred to, the new company organized by the election of thirteen directors, who are amongst the most wealthy and influential citizens of the eastern part of the state. Of this board Samuel Hannah, Esq., of this city, late State Treasurer, is President. The organization is such as to command the entire confidence of the country and furnish a guarantee that the business of the company will be well and properly managed, and its funds judiciously expended. The directors have just had the line of road permanently located by H. C. Moore, an engineer of high standing from the eastern part of the state, and the location is said to be a very favorable one. The length of the road is 71½ miles, of which but 34 miles, or about 5 per cent. is curved road, leaving 95 per cent. of straight lines, one of which is over 21 miles in length, another 14 miles. This is believed to be entirely unprecedented in this country. The company design having the road constructed in the most substantial manner, and when so built, it must be a road which can be travelled with very high speed.

The road has been divided for the purpose of construction, into five divisions, and as fast as stock is subscribed on each division, enough to do the grading, the work is to be put under contract. Under this arrangement the first division extending from the state line to Centreville, 10 miles, and the fourth division from Knightsville to Greenfield, 13 miles, have been put under contract, and the contractors are now actively at work on them. On the 2nd and 3rd divisions, extending from Centreville to Knightsville, a considerable amount of stock is taken, and it is confidently expected that a sufficient amount will be obtained to authorize the commencement of these divisions within the next six weeks. On the fifth division, from Greenfield to this city, no effort has yet been made to obtain stock, but we learn that in a short time the citizens along the line and in this city, will be called on to subscribe. We hope soon to be able to announce that the whole

line is in the hands of contractors, and rapidly going ahead. In this connection we may state that we have information from a reliable source, that the Dayton and Western railway, which is a continuation of the Indiana Central road from the state line to Dayton, is now rapidly approaching completion. The grading is nearly finished, the iron has been purchased, and in August they will commence to lay it down; and in January next they expect to have the cars running over the road to the state line and perhaps to Richmond. By that time also the western end of this road from this city to Terre Haute, will be finished, and the cars running regularly. Who then can doubt the success of the "Indiana Central railway?"—*Indiana State Journal*.

New York.

The *Yates County Whig* states that the work on the Canandaigua and Corning railroad has been retarded by several causes, and among others an immense rock excavation about three miles south of Penn Yan, from which marketable stone has been taken to the amount of \$7,000 worth, on the ground. The company will not be able to make the contemplated excursion to Penn Yan from Jefferson on the Fourth of July, but it is their intention to complete the road and make trial trips in the latter part of July, and commence the regular business trips on or about the 1st of August.

A meeting of the Rochester common council was held on Thursday evening, to take into consideration the propriety of petitioning the legislature to pass an act, submitting to the people of that city the question whether the common council shall issue city bonds for the amount of stock required to be taken in the Genesee Valley railroad.

For the American Railroad Journal.

The Hempfield Railroad.

In this age of progressive improvement, everything connected with the progress of railroads in any part of the country, is interesting to the public. The New York and Erie railroad lately opened is the longest continuous road in the United States, and now forms a most important line of communication by the lakes between the city of New-York and the great West.

There is, however, another line of communication between the Atlantic cities and the valleys of the Ohio and Mississippi, which, from the shortness and directness of its route, is attracting a great deal of attention and which promises to be one of the most important thoroughfares in the United States. It is known that the great central road of Pennsylvania, from the city of Philadelphia to Pittsburg, is in a considerable state of forwardness and will ere long be completed. Connected with this road and diverging from it at Greensburg, in Westmoreland county, about 30 miles east of Pittsburg, a company has been organized, called "The Hempfield Railroad Company," to construct a road directly through Washington, in Washington county, to the city of Wheeling, where in its course west it will connect with the central railroad of Ohio, which passes through Zanesville and Columbus, in the direction of Indianapolis, and will be extended through Terre Haute to the city of St. Louis. From Zanesville, on the line of this central railroad of Ohio, a company has been incorporated to construct a road through Lancaster, Circleville and Wilmington directly to the city of Cincinnati. An inspection of the map will satisfy any enquirer that this route will be by far the shortest route of any road now in progress or in contemplation between the city of New-York and Cincinnati and St. Louis, and promises

to secure to it an immense amount of trade and travel from the growing West.

It will be found, on examination, that an air line drawn from St. Louis to New York passes nearly through Columbus, Zanesville, Wheeling, Washington and Greensburg, and a particular scrutiny is invited into the merits and claims of this new line of communication. It is believed that it possesses superior claims to any other line which has been proposed or which is now in existence.

The Hempfield railroad, forming the connecting link between the central railroad of Pennsylvania and the central railroad of Ohio, will be less than 80 miles in length, and passes through a fertile, well cultivated, productive and thickly settled region of country. Its location and construction have been placed under the charge of Chas. Ellet, Jr. Esq., the distinguished artist who constructed the Niagara and Wheeling river suspension bridges, and who is favorably known throughout the country as an accomplished engineer and as an efficient business man. He has examined the route of the road and found it entirely practicable. By his recommendation the Board have authorized the definitive surveys to be made without delay with a view to the early commencement and final completion of the work. It will go on speedily and promptly, and although this link of the Hempfield connection is a short one, yet, it is believed that no one can be found in the country which will surpass it in importance, usefulness or profit.

Rouse's Point Bridge.

This vexed question is at last disposed of. The bill which has just passed the legislature of this State, provides that the Northern railroad company may, in the first instance, extend their pier at Rouse's point, to a point two hundred and fifty feet from the centre of the channel of the outlet of the Lake, being the dividing line between the States of Vermont and New-York. If the legislature of Vermont shall authorize the Vermont and Canada railroad company to advance their pier on the east side of the Lake to a point one hundred and twenty-five feet from the centre of the channel, then the Northern railroad company may advance their pier a corresponding distance, thus leaving only a space of two hundred and fifty feet.

The law strongly guards the interests of the navigator. The pier is to be supplied with spring piles, as tenders, snubbing posts, &c. Vessels may moor beside the pier, at all times free of charge. The pier is to be kept lighted during the night in the season of navigation.

"It is believed," says the *Albany Evening Journal*, "that the law secures to the inhabitants of the Northern counties what they have so long and ardently desired—a safe and dry crossing in the winter season. The boat now constructing by the Vermont and Canada company being fifty feet longer than the space between the ends of the piers—each end resting and being supported in the slips to be constructed within the pier—will remain firm in its place, and afford a permanent track."

"We rejoice in the result—not less on account of its benefits to our Northern friends, than the cheering indication it affords of the disposition exhibited, to open wide all our avenues of trade—to lay aside all petty jealousies and rivalries, and to share alike and compete manfully for the benefits of the commerce of the country. This disposition

may safely be indulged. The West is yet in its cradle. When its manhood shall have become developed, she will cry for increased facilities for her products."

Ohio.

Akron Branch Railroad.—The last week was one of interest to this enterprise.

On Tuesday the county of Summit voted by a majority of seven or eight hundred, to subscribe one hundred thousand dollars to the stock of the company. On Saturday, the grading and masonry on the northern division of thirteen miles from Hudson to Akron, was let to several different contractors, believed to be men of high character and responsibility, at prices varying somewhat below the engineer's estimates. The contractors are already busy in preparing for the work.

The portion of the line between Hudson and Cuyahoga Falls, is to be finished by the 15th of October next, the remainder by the 1st of April next.

Contracts are made for locomotives to be delivered in September; and negotiations are pending for the iron which will probably bring it here in time for laying the track as soon as the road bed is prepared for it.

The commissioners of Holmes county have agreed to subscribe \$75,000 to the stock of the company, in case the work should be prosecuted immediately into that county. To this amount, from forty to fifty thousand dollars in addition are understood to be pledged by individual subscribers.

Engineers will be immediately put on the survey and location of the line beyond Akron, and the work carried forward with all practicable dispatch to completion.

We may reasonably hope, therefore, that in a year or a little more, the cars will be running from this point to the Ohio and Pennsylvania road, which with its connections will open a direct communication with Cincinnati, and also across the Ohio and Pennsylvania road to Millersburg, the county seat of Holmes county.

Few railroad enterprises, in our opinion, promise better than this at the present time.—*Hudson Ohio Observer.*

Lead in Missouri.

We learn from the *Southwestern Flag*, that the lead mines in Jasper and Newton counties, in this State, are now worked with great activity, and that recent discoveries of large quantities of ore have been made. The *Flag* says, of the Turkey creek mines:

"In several places we see where the miners had struck leads of from nine to twelve inches thick. These leads or veins all appeared to be standing on edge, a sure indication, we believe, of a large quantity of mineral. As to the depth or extent of the veins or leads, we could form no idea. Mr. Cox showed us one shaft, out of which had been taken from 80 to 100 pounds of ore. This mineral was of the richest quality, and was on the land owned by the firm of the Messrs. Scott's and Judge McKee. From Turkey creek mines, we visited the Mammoth mines, on Shoal creek, belonging to Mr. George Mosely, of Neosho. Here we found the miners, to whom we return our thanks for their kind treatment in showing us the mines, and answering our many inquiries. Mr. Mosely has a furnace in full blast, and is making a large amount of lead. We were down in the mines and picked out the richest of mineral, sixty feet under ground.

"The ore was struck in these mines at about the depth of forty feet, and still continues down. There appears to be sheets of ore from nine to fifteen inches thick, running horizontally, about every four feet. These sheets have the appearance of extending to a great distance. In addition there is one lead or vein, standing on edge, which furnishes great quantities of the very richest of mineral. Mr. Mosely appears to be working these mines with great energy and enterprise, and is melting a large amount of lead. We also visited the mines at Mr. Johnson's, on Grove creek, near Carthage, where there is another prospect of large

quantities of mineral. From what we understood when at the mines, we did not see the finest prospect for mineral. The mines of Mr. Gilstrap, near the Mammoth mines on Shoal creek, are said to be the richest yet discovered. The Gilstrap mines we were anxious to see, but failed for want of an opportunity. We, however, saw sufficient to satisfy us there is any quantity of mineral in that section of country. The mineral discoveries have in this very short time caused a very large emigration to those counties, and it is thought the population will be doubled in two years.

"Miners from south-east Missouri, from Galena and Wisconsin, are flocking to these new discoveries, confident their labor in mining will be paid with an abundant yield of mineral. We have no doubt their labor will be amply rewarded. Since our return, we understand additional discoveries have been made near Carthage."

From the London Times.

Whitney's Great Atlantic and Pacific Railway Project.

On Monday evening, a meeting of the Geographical Society of London was held at the King's College, (Sir Roderick Impey Murchison in the chair,) when Mr. Asa Whitney, the proprietor of the gigantic scheme of a railway from Michigan to the shores of the Pacific ocean, attended and read, before a distinguished assemblage of members and visitors, an interesting paper on the general features and importance of the enterprise.

Mr. Robert Stephenson, C. E., stated as his opinion that the only difficulty, as regarded a long railway, was a commercial one. He had no means of offering any opinion as to the facilities for the execution of Mr. Whitney's project; but he would take it that what Mr. Whitney himself stated on that point was correct, and that the plains abounded with timber and every requisite for constructing the line from the Atlantic to the Pacific. Yet the commercial question outweighed almost everything which Mr. Whitney had adduced as to distances; for, as regarded navigation, it all depended on the amount of money charged for conveying goods from one place to another, rather than on the number of miles. This was plain from the case of the line by the Isthmus of Suez, as compared with that via the Cape of Good Hope to India, owing to the difficulties of navigation in the Mediterranean, where you must have a lee shore everywhere, if you have a gale. The effect was, that the freights of goods from Liverpool to Alexandria, exceeded those from Liverpool to Bombay round the Cape of Good Hope. This almost satisfied his mind that the opening of a communication between the Red Sea and the Mediterranean, by water, would be of no avail, commercially speaking. The construction of a railway to save time, for mails and passengers, was a feasible project, and deserving of the attention of England; but with regard to the opening of a canal, supposing the facilities to be so great, and that, in fact, the money in question was as much sunk as Mr. Whitney supposed it to be sunk as regarded this project, he (Mr. Stephenson) believed that if a canal was made, the commerce between England and India would not then go by the Mediterranean and the Red Sea. In fact, he thought if the Isthmus of Suez were swept from the face of the globe, as Mr. Whitney supposed the Isthmus of Panama to be, that still the commerce of the world would not pass through it.

But he preferred the Northern route of the railway to the Southern, believing that in our territory there were greater mineral resources, and that large fields of labor would be opened up there. Doubtless a great project of that description ought to be for the benefit of the whole world; but he could not but see that if Mr. Whitney's original plan were carried out, all the local advantages and profit would go to the United States, and he should prefer that some of the benefit was secured to our own colonies. If Mr. Whitney's original plan were not carried out in the territory of the United States, he was satisfied that nobody could render more assistance than that gentleman could in carrying the project out for our own country.

Col. Lloyd said it would take 220 years to complete this project, and we could not afford to wait so long as that. Besides it would place the whole of our commerce at the mercy of the United States

and our North American Colonies. Another project was, that all our merchandise coming from the tropics, the East Indies, China, and all those parts, would have to traverse so vast an extent of country, and having arrived at New York or Nova Scotia, would have then to undergo the transit to England by a passage which was the most injurious of all to goods during three or four months of the year. These considerations appeared to him to strike a deadly blow at the projected railway across the American Continent.

Sir Edward Belcher, R. N., considered the project untenable as a route for commerce, and thought that if the land was settled, and gold should be found in the interior, the gold would not pay for the expense of carriage to the coast.

Capt. Fitzroy, R. N., said his humble opinion, as a seaman, was, that in case of the route by Panama being opened, the commerce of Asia would, as a matter of course, take that line, for the simple reason that it was the easiest line of navigation with all parts of the world. The commerce of Europe and of the greater part of North America would find favorable winds to carry it to the Isthmus, and also to carry it on its route across the Pacific to the whole of the Australian colonies and Asia generally. Sailing ships, in returning from the Australian colonies, or from the south of the Equator, would return by the westerly winds below the tropic, and then through the Isthmus of Panama by the West India islands, and taking the course home now followed by the West India traders, thus avoiding the Cape of Good Hope and Cape Horn.

A ship from China and the north of the line would go by the Northern Pacific, taking the Western winds which there come down from California, until she got into the trades, which again would carry her to the eastward until she got to the Isthmus of Panama, and from the Isthmus the passage would be as before. That the opening of the Isthmus of Suez would not have the same advantage he believed, for reasons assigned by Mr. Stephenson, viz.: the dangers of that narrow passage of the Mediterranean, the Red Sea, and also Indian Ocean. Therefore, the open route to India was preferable for commerce, as having less risk, however easy might be the passage by water through the Isthmus of Suez itself; but, of course, a railway by Suez would have great advantage as regarded the transmission of passengers and mails.

He objected to Mr. Whitney's project on account of the great elevation of 7000 feet to be overcome. Now a rise from a level country to a height of 6000 or 7000 feet, was an elevation altogether unprecedented in railway enterprise. A rise of some hundreds of feet was a formidable objection to the engineer; but to carry a railway through a wild and totally uninhabited country, advancing ten miles at a time, would take a very considerable number of years to complete the first 700 or 800 miles; and although the settlement of the route was contemplated, yet the increase of population must be gradual, and the building of houses for them must occupy a considerable period. He hoped the Indians in these regions would be made friends; but if they became enemies, there might be great difficulty in pushing their way with a railroad in that manner. That, however, was perhaps but a minor difficulty—the 7000 feet of elevation was the greatest obstacle. Then again with regard to the transport of goods, there was little likelihood of a transshipment, because with the powers of steam in the present day, water carriage of any distance was a very small expense, and the time was certain. Therefore the prospect of commercial remuneration in the sequel appeared to be very remote. The character of the winds between the different countries, and the currents, was so well known that the voyage even of sailing vessels could be calculated to a very short time. But he thought Mr. Whitney was mistaken in saying that the voyage could be made from Oregon or Vancouver's Island, across to Canton, with equal facility either way. The voyage could be made from the west side to America, with great ease; but from the trade winds, the voyage in the contrary direction was attended with difficulty. However valuable the project, therefore, might be to the United States, it could not possibly be of use to Europe and the Asiatic world. It seemed to him a ques-

tion more relating to the United States and the Canadas than to Europe.

Mr. Whitney is treading on dangerous ground. He should never unfold his scheme to men of sense or experience. This will never do. Mr. Stevenson in his remarks, has only repeated the opinion of every engineer of reputation in this country. Mr. Whitney took very good care to keep clear of this class of our citizens, but it seems he ventured a little in England, thinking, probably, his plan would escape detection there. If he had any strength in this country, the remarks of Mr. Stevenson and others would seriously damage his case.

Missouri.

Pacific Railroad Company.

We have received the first annual report of the board of directors of the Pacific railroad, submitted to a meeting of the stockholders held at St. Louis, on the 30th March, 1851. The preliminary organization of this company took place on the 31st January, 1850. On the 4th of February following, books for subscriptions to the stock of the company were opened at the Merchants' Exchange, in St. Louis, and 4,416 shares were taken in that city alone. On the last Monday in March following, the board of directors were elected, as prescribed by the charter, and the services of James P. Kirkwood, Esq., of New York, were obtained as chief engineer. Under his charge the preliminary surveys were commenced, with two parties, on the 24th of May, and embraced the Merrimack Valley route, crossing the Gasconade and Osage rivers, south of Jefferson city, and subsequently the Missouri river route as far as Jefferson city, and also a line from the main line, near Cass county, to the Missouri river, near the mouth of the Kansas. The field work of these surveys was closed on the 29th of November, and the report of the Chief Engineer (which accompanies the report of the board of directors) was completed in January of this year. These surveys were conducted with the greatest intelligence and ability, and comprehended a general examination of the country, and an instrumental survey of three routes to the Gasconade river, viz.:—1st by the Merrimack Valley; 2d by Union Ridge, and 3d by the Missouri Valley, with continuations condensed into two routes to Jefferson city—one route crossing Osage river, south of Jefferson city, and passing by Versailles, and surveys continued to the state line in Cass county; and also by Independence to Kansas. These surveys embraced an extent of country of over three hundred miles in length, and of from twenty to thirty miles in width, the aggregate length of the different lines being 825 miles.

To meet the expenses of these surveys, the board of directors, in May, made a call upon the stockholders for an instalment of five per cent. upon their subscriptions, one half of which was made payable on the first of June, and the remainder on the first of August, 1850. The instalments were paid, in most cases, with great promptitude, the amount received therefrom being \$24,517 50. There yet remain unpaid \$2,687 50, which it is believed will be nearly all collected.

The total amount expended last year for instruments, outfits, engineering, rent, &c., is \$20,056 65, leaving a balance in the treasury on the 31st March 1851, of \$4,943 78.

Among other favorable indications, it may be mentioned that a general disposition prevails among the people of those counties situated on or near the proposed line of road, to aid this work by every means in their power. In many cases votes have been taken in favor of subscriptions by the

respective counties. Only two counties, however have as yet actually subscribed, viz.:—St. Louis county, which has subscribed \$100,000, and paid the first instalment of five per cent., and Jackson county, which made a conditional subscription of \$100,000, payable when the road is completed up to the Jackson county line.

The total amount of actual subscriptions to the stock, of all kinds, to the time of making the report, is.....	\$544,100
To this add the conditional subscription of Jackson county.....	100,000
Individual subscriptions in Cole & Franklin counties, about.....	14,000
Subscription voted by people of St. Louis.	500,000
	<hr/> \$1,158,100

Before any part of the state loan can be made available, it will be necessary to raise by subscriptions the further sum of \$341,900, making a total of a million and a half of dollars, upon which the state will make a loan of an equal sum, making a capital of \$3,000,000. If, however, the stock subscriptions should amount to two millions, the state will advance an equal sum, when the available means of the company would amount to \$4,000,000. To secure to the state the payment of the annual interest, and the ultimate redemption of the principal of this loan, the company are to mortgage their road and its appurtenances, to the state, from time to time, as the bonds are issued and accepted by the company.

The application of the company to Congress for a grant of the right of way through the public lands, and also for a donation of alternate sections of land along the proposed route of the road, although supported by numerous petitions from people in different parts of the state, and by the entire delegation of Missouri in Congress, was not so successful. A bill granting the state, in aid of this work, alternate sections of land in a space six miles wide, on each side of the road, passed the Senate of the United States, and the report states would probably have passed the house of representatives could it have been reached. The board anticipate a favorable action upon the bill, at the next session of Congress, as that grant, added to the other available means of the company, would enable them to construct the entire road to the state line. It is believed that the value of the remaining sections would be sufficiently enhanced to render the United States gainers by the operation; and already large amounts of lands subject to private entry, have been taken up in the vicinity of the lines of survey. The board of directors, however, believing that it is important that a commencement should be made of the work, have concluded that some 40 or 45 miles of the road may be located and put under construction the present year, without necessarily fixing the route of the remaining part of the line, leaving the location of that part undecided, until another appeal shall be made to the liberality of Congress.

The first part of the line will be the most costly, and the forty miles proposed may be estimated at about \$1,000,000, including lands for buildings in St. Louis, land damages, superstructure, buildings, machinery and cars. The estimated cost for the whole road of about 300 miles, will be about six millions of dollars, including everything necessary to put the road in complete working order. The maximum grade is about fifty feet to the mile, but this may possibly be reduced. The general plane of the country south of the Missouri river, is shown by these surveys to be somewhat higher than has been generally supposed. In going west forty

miles, there is a rise of four hundred feet above high water of the Mississippi; at 110 miles distant, near the Gasconade, is an elevation of six hundred and fifty feet; at 200 miles, seven hundred and fifty five feet; and at the state line, six hundred and sixty-six feet above high water at St. Louis. The valley of the Gasconade is 490, and that of the Osage 380 feet below this general plane, and the country as far west as the Osage is much broken, making considerable curvature and undulation in the line necessary. The valleys of the Missouri and of the Merrimack, however, as far as they can be followed, both admit nearly level grades. The former route is somewhat the shortest, being at the same time per mile the most costly. The selection of the route was left to the new board of directors, who held a meeting on the 18th of June, and unanimously adopted what is termed the Merrimack route by the following resolution:—

Resolved, That the route through Chouteau Pond valley, and the valley of the Des Peres, to the Merrimack valley, and up that valley for a distance of about thirty-nine miles from St. Louis, commencing in St. Louis at Fourteenth street, be adopted as the first division of the Pacific railroad.

Accompanying the report of the directors, we have the report of the chief engineer, which we shall present to our readers in our next number.

Catawissa Railroad.

A large and enthusiastic meeting of the citizens of Tamaqua was held at that place on the 26th ult., to take into consideration the best means of aiding and securing the construction of the Catawissa, Williamsport and Erie railroad, and for the purpose of impressing upon the minds of the people of Pennsylvania the importance of completing a direct line of communication between Lake Erie and the city of Philadelphia. Dr. W. W. McGuigan was appointed chairman of the meeting; Messrs. R. Ratcliff, R. A. Heaton, J. Carter, J. Johnson, J. S. Boyer, C. Dannehauser, H. S. Denniston, A. H. Deuel, and Wm. Taggart, jr. vice-presidents, and E. J. Fry, secretary.

Several spirited addresses were made by the chairman, Mr. Richard B. Osborne, the engineer of the line, and other gentlemen; in which the advantages of the proposed line were set forth, as enabling the citizens of Pennsylvania to secure a share of the trade flowing from the great West, which now is almost entirely monopolized by New York. The enterprise and increasing prosperity of Baltimore was also adverted to: and it was stated that she too was alive to her interests in this respect, and through the State of Pennsylvania was about to construct a line to the very point which the Catawissa, Williamsport and Erie road was first aiming to reach: viz. the town of Williamsport. As the latter line would be speedily put under construction, the race would be between the two companies for completion. Baltimore, from Harrisburg to Williamsport, has ninety three miles to construct, while Philadelphia has but fifty-one miles, and the superstructure of thirty-six to lay down.

The following are the resolutions adopted by the meeting:

Resolved, That in the opinion of the inhabitants of Tamaqua, it is the duty of the people of Pennsylvania to remain no longer passive and indifferent to the humiliating condition of seeing her sister States, New York and Maryland, by their superior foresight and energy, monopolize the whole of the traffic of the Great West; thereby undermining the commercial prospects of Pennsylvania, and drawing from her those advantages which her natural position legitimately proffers.

Resolved, That as citizens of the Keystone State, it is of paramount importance that Pennsylvania should have without further loss of time an independent communication to Erie—the first port on the western lakes. That in view of this, as Pennsylvanians, we are but performing a duty, by appealing in the strongest terms to all our citizens, to support and secure the construction of the Catawissa, Williamsport and Erie road. That inasmuch as the contractors are now on the line, the iron purchased for the whole distance to Williamsport, and it is known to us that the engineers have received instructions to push the work on this portion of the route, we do feel impatient to contribute to the commercial prosperity of our whole State, and call upon all—and particularly the people of Philadelphia, the corporation of that growing city, our State legislators and our worthy governor Johnson, to make common cause, and by united efforts at once supply the means of putting the rest of the route from Williamsport to Erie under contract.

Resolved, That we look forward with anxiety to meetings being held in Philadelphia, Reading, Catawissa, Williamsport and Erie, as points more immediately interested, to bring before the people the true prospects that await them as a reward for the long delayed, but still timely enterprise of forming a main avenue from Philadelphia to her own port of Erie and through her own territory.

Resolved, That we the citizens of Tamaqua, do hereby pledge ourselves collectively and individually to use every effort in our power to aid in the completion of the Catawissa, Williamsport and Erie railroad.

Resolved, That a committee be appointed to confer with our fellow citizens along the line, and to make arrangements for a general meeting of the friends of the road from all points, to be held at Catawissa at such time as the committee may determine.

Wilmington and Manchester Railroad.

\$300,000 Seven per cent. Mortgage Coupon Bonds.

SEALED PROPOSALS will be received by the subscribers, until THURSDAY, the 10th day of July next, for three hundred thousand dollars of the first and only Mortgage Bonds of the Wilmington and Manchester Railroad Company, bearing interest at the rate of 7 per cent. per annum; principal and interest redeemable in the city of New York; the principal on the 1st June, 1866.

The Bonds are in sums of \$1000 each, with coupons payable at the Merchants' Bank, New York, on the 1st December and 1st June in each year, convertible into the capital stock of the company, at the option of the holders.

They are issued under acts of the Legislatures of North and South Carolina, secured by a Mortgage or Deed of Trust, to Edward Sandford, Esq., of New York, in trust for the holders of the Bonds.

The Deed of Trust covers the entire line of road completed and to be completed from Wilmington, in N. C., to Manchester, in S. C., a distance of 162 miles, costing, when completed with a heavy T rail, and equipped, \$1,600,000. The extraordinary adaptedness of the country to the construction of a railway accounts for this low cost.

The Trustee is empowered, in case of 60 days' default in payment of principal or interest, to take possession of the entire line of road, with its equipments, stations, income, franchise, &c., the same to sell, at his discretion, to the highest bidder for cash to pay arrears of principal or interest.

The whole amount of bonds authorized to be issued by vote of the stockholders, at a meeting called for that purpose in April last, and an order of the Railroad Board, is \$600,000, to raise means to pay the residue of the iron rails and equipments, only \$300,000 of which are now offered for sale.

The Company will owe no other debt when the road is completed.

This road will prove an important link in the great chain of railroads from Boston, New York, and Philadelphia, to New Orleans, connecting at Wilmington with the Raleigh and Wilmington railway, now in successful operation at Manchester, with the great South Carolina railroad leading

from Charleston, in the direction of Montgomery, Alabama, now in the receipt of near a million of dollars annually from its business; will avoid the present disagreeable sea voyage from Wilmington to Charleston, shorten the travel to New Orleans one day's time, facilitate the mails, and will bring the South in more immediate and direct communication with the North.

The position of this road, its connections North and South, its easy grades, (none over thirty feet to the mile,) freedom from curves, and cheap construction, is such as to put it beyond the competition of any other line of road, for the immense inland travel between the North and New Orleans.

The greater part of this road traverses the most populous and fertile portion of South Carolina, producing cotton, corn, &c., in great abundance. Its local business alone will support it handsomely.

The census of 1850 shows that the district of country which will be tributary to this road, and dependent on it for transportation to market, produced in 1849 seventy thousand bales of cotton, of an average weight each of 450 lbs.

The Company has one million of available stock subscribed, most of which has been paid in and applied to construction, to which can be added, at any time, at the option of the company, \$200,000, subscribed by the state of North Carolina on certain conditions.

It is estimated that the net annual profits will reach 12 per cent. per annum.

About one half of the entire line has been graded and bridged, the cross-ties being in the course of delivery and will be ready for the iron rails immediately.

The entire line is under contract for grading and bridging, and in a forward state towards completion.

Six thousand two hundred tons iron rails, T pattern, have been purchased and are in the course of delivery.

About \$700,000 has already been expended in construction, including payment for the rails purchased.

It is expected that about 80 miles from Manchester East will be completed and in operation in the fall of this year, and the entire line to Wilmington early next year.

The management of this road is in highly respectable and competent hands. No work in the South undertaken or projected meets with more public favor than this.

For further and more particular information we refer to a printed "Exhibit" giving full details of the road and its affairs, which contains a Map of the line with its many connections, copies of the Bond and Mortgage, opinion of Counsel, &c., prepared by Gen. W. W. Harlee, President of the Company, which may be obtained on application at the office of the company, at Washington, N. C., or of the undersigned, by mail or otherwise, with any other information desired.

We deem the security a desirable one. The States of North and South Carolina, and the various corporations chartered within her limits, which have been borrowers of money, have uniformly, and under the most adverse circumstances, promptly met their pecuniary engagements. Public sentiment in these states has always taken high ground in regard to punctual fulfilment of public and private pecuniary obligations.

The \$300,000 will be disposed of absolutely and without reserve to the highest bidder.

Sealed proposals, for any amount not less than \$1000, will be received at the office of the undersigned until 3 o'clock on the 10th of July, proximo.

Proposals to be addressed to WINSLOW, LANIER & Co., 52 Wall Street, New York, endorsed "Proposals for W. and Manchester Railroad Bonds."

Parties whose bids are accepted will be required to pay twenty per cent. upon the amount awarded to them upon being notified of the acceptance of their bids, and the remainder in equal amounts on the first day of September, October, November and December next, but any party will be at liberty to pay in full at once if desired. Interest will commence from the day of payment.

WINSLOW, LANIER & Co.,
52 Wall St.

THE Fourth Annual Exhibition of AMERICAN MANUFACTURES, by the MARYLAND INSTITUTE for the Promotion of the Mechanic Arts, will be opened in Baltimore on the 20th October, 1851.

The Exhibition will be held in the SPLENDID NEW HALL of the Institute, (fronting on Baltimore street) now being rapidly completed. Their edifice is centrally situated, chaste in its architecture, solid in its construction, and is by far the largest and most complete building in the United States, devoted to the Mechanic Arts. It may be added that this building is 355 feet long by 60 in breadth, with an average height of 68 feet, containing some twelve apartments, the largest of which is 255 feet by 60, and that the cost will be over \$70,000.

To this Exhibition, the Managers ask the attention of all engaged in industrial pursuits throughout the country, and cordially invite them to contribute specimens of their best productions for public inspection, and to compete for the prizes offered by the Institute. These prizes consist of Gold and Silver Medals, Diplomas, etc., which were last year distributed as follows:—Gold Medals, 16; Silver ditto, 90; Diplomas, 60; besides 85 articles of Jewelry, etc., to ladies. Fair play will be scrupulously observed towards all, and every facility of Steam power, shafting, fixture, labor, &c., &c., will be amply provided free of expense. The machinery will be under a special superintendent, and a fine display of it is looked for. The last exhibition of the Institute was visited by more than 40,000 persons, and with their vastly improved accommodations and alterations, this number will be doubled at the coming display, embracing many Virginians, Pennsylvanians, and other strangers from the South and West.

Joshua Vansant, President.

Ed. Needles, } Vice Presidents.

F. A. Fisher, }

Samuel Sands, Rec. Sec'y.

Wm. Prescott Smith, Cor. Sec.

F. J. Clare, Treasurer.

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R. Eareskson,	Chas. Suler.

(The last nine in *Italics* are the Committee on Exhibition.)

The Hall will be opened for the reception of goods on MONDAY, 13th October; on the next Monday, 20th, at 7 P. M., the Exhibition will be formally opened to the public, and will positively close on Wednesday, 19th November. Articles for competition must be in the Hall by Thursday night, Oct. 16, unless delayed in shipment after starting in ample time.

Those who intend depositing, will give the Committee or the Agent, notice as early as possible, stating the nature of the goods, and probable amount of room required, to exhibit them to advantage.

Circulars, containing a view of the new Hall and the full regulations of the Committee, with special information, if required, may be had promptly, by addressing the undersigned, or the Institute's Agent, J. S. Selby, Baltimore, post-paid.

ADAM DENMEAD,

Chairman Com. on Exhibition for 1851.

Knox & Shain,

MANUFACTURERS OF
LEVELS, TRANSITS AND SURVEYING
COMPASSES.

No 72 Dock st. first door south of Walnut, west side,
PHILADELPHIA.

North Carolina.

Central Railroad.—The ceremony of breaking ground on the North Carolina Central railroad, will take place at Greensborough on the 11th inst.

Trautwine on R. R. Curves.

By JOHN C. TRAUTWINE, Civil Engineer,
Philadelphia, Pa.

IN press, and will be published in a few days; accompanied by a Table of Natural Sines and Tangents to single minutes, by means of which all the necessary calculations may be performed in the field.

This little volume is intended as a field-book for assistants; and will be found extremely useful, as it contains full instructions, (with wood cuts) for laying out, and adjusting curves; with Tables of Angles, Ordinates, etc., for Curves varying from 13 miles, down to 146 feet Radius.

A portable Table of Natural Sines and Tangents to minutes, has for a long time been a desideratum among Engineers, independently of its use in laying out curves.

The volume is neatly got up in duodecimo; and handsomely bound in pocket-book form.

Sold by Wm. Hamilton, Actuary of the Franklin Institute, Philadelphia. Price \$1.

Also in press, and will be issued in a few weeks, "Trautwine's Method of Calculating Excavation and Embankment."

By this method, which is entirely new, (being now made known for the first time) the cubic contents are ascertained with great ease, and rapidity, by means of diagrams, and tables of level cuttings. Thin octavo; neatly half bound, \$1. For sale by Wm. Hamilton.

AMERICAN RAILROAD JOURNAL.

Saturday, July 5, 1851.

Stock and Money Market.

There has been for some time past an increasing tightness in the money market, owing rather to apprehensions in reference to the future, than to a scarcity of money, which continues abundant in all the ordinary business channels. The immense shipments of specie cause a good deal of disquiet; and as these must continue for some time to come, capitalists move cautiously. Our importations exceed our exports largely, which is another bad feature.

But little is doing in new securities, though pretty large amounts are now offering. The stocks and bonds of our western roads are steadily gaining upon public confidence; and they are believed to be not only safe, but to promise a large return upon capital. All our roads are doing remarkably well, and as far as receipts are concerned, the present bids fair to be a season of remarkable prosperity. Crops of every description throughout all the States we believe are unusually abundant, and this fact will add largely to the fall business.

The foreign iron market continues dull, as will be seen by the report of Wm. Bird & Co., which we annex:

"During the past week our pig iron market has been quiet and dull, transactions being limited as heretofore to immediate wants. In spite of the downward tendency, however, it is difficult to obtain iron against purchases, nor is any particular disposition evinced as yet by holders to force sales: expectations of a speedy reaction remain on the contrary strong.

Shipments are not quite so extensive, yet large for the time of year, and the demand for home consumption still both regular and good.

Our quotations are to-day as follows:

	Mixed			
	No. 1.	No. 1.	No. 3.	No. 3.
Good manufactured bars.	39s.	6d.	39s.	6d.
Garthsherrie.	41	3	41	0
Langloan.	39	9	39	6
Free on board at Glasgow.	43	0	42	6
Forth.	43	0	42	6

Free on board Charlestown.
Kinneil.....42 6 42 3 42 0
Free on board Bo'ness.
Eglinton and Glengarnock.40 6 40 0 39 9
Free on board Ardrossan.

"Garthsherrie" delivered free on board at East Coast at 1s. 6d. per ton additional; other brands 2s. 6d. per ton.

The demand for manufactured iron remains limited at the rates annexed.

Bar Iron.—"Monkland," and similar quality, £5 5; "Dundyvan," do., £5 5; "Govan," do., £5 15. Sheets and plates, £7 10; Hoops, £7 10; Nail rods, £6 5 per ton, free on board at Glasgow, usual discount.

Founders are all well supplied with orders."

The receipts of the Erie railroad from the month of June, were as follows:—

Passengers.....	\$124,586 62
Freight.....	100,135 82
Total.....	\$224,722 44
June, 1850.....	120,324 42

Increase in 1851.....\$104,398 02

Connecticut and Passumpsic Railroad.—The receipts on the Connecticut and Passumpsic rivers railroad for the year ending June 1, 1851, were\$149,583 11
Expenses same time.....65,458 19

Net Earnings.....	84,124 92
Interest and two dividends of 3 per cent. each.....	79,311 00

Surplus for the year.....	4,813 92
Surplus previously on hand.....	3,556 31

Total surplus June 1, 1851.....\$8,370 23

From this the directors have appropriated sufficient to meet the entire loss by the freshet, which occurred in the spring of 1850, and which could not be ascertained until some time after its occurrence. The amount of extraordinary expense charged off for this purpose is about \$6,000.

Dividends and interest to the amount of about \$1,600,000 will be paid in Boston in the course of the present week. Among some of the most prominent are the following:

	Capital.	Amount.
Western Railroad...	\$5,150,000 4 pr. ct.	\$206,000
Boston & Worcester...	4,500,000 3 1/2	157,500
Boston and Maine...	4,155,700 3 1/2	145,449
Fitchburg.....	3,320,000 4	132,800
Taunton Branch.....	250,000 4	10,000
Boston & Providence...	3,160,000 3	94,800
Boston & Lowell.....	1,830,000 4	73,200
Connecticut & Passump.	1,090,000 3	32,700
Fall River.....	1,000,000 3	30,000
Pittsfield & N. Adams.	450,000 3	13,500
Worcester & Nashua...	1,267,800 2	25,350
S. Reading Branch...	200,000 5	10,000
Old Colony Railroad...	1,854,200 2	37,084
Mass. 5 percent. issued		
West Railroad.....		24,875

The following statement shows the operations of the United States Mint at Philadelphia, for June 1851:—

May 31—Balance.....	\$1,424,815 91
June 30—Rec'ts Customs, \$267,569 20	
P. O. Money.....	15,081 34
Fund per int. on Loans	181,193 06
Miscellaneous.....	3,344 19
Total.....	\$1,892,003 70

Payment Treas. Drafts.....	\$438,949 75
P. O. Warrants.....	33,870 34
Interest on Loans, Pen-	
sions, &c.....	14,497 63
Total.....	487,317 72
June 30—Balance.....	\$1,404,685 98

Gold bullion deposited for coinage from 1st to 30th June, 1851, inclusive:

From California.....	\$3,570,000
From other sources.....	60,000
Total.....	\$3,630,000

Silver Bullion deposited in same time.....\$11,700

COINAGE FOR JUNE.**Gold.**

130,515 Double Eagles.....	\$2,610,300 00
12,127 Eagles.....	121,270 00
71,236 Half Eagles.....	356,180 00
114,244 Quarter Eagles.....	285,610 00
279,888 Gold Dollars.....	279,888 00

608,010 Pieces.....\$3,653,248 00

Silver.

1,300 Dollars.....	\$1,300 10
12,500 Half Dollars.....	6,250 00
16,000 Quarter Dollars.....	4,000 00
65,000 Dimes.....	6,500 00
946,500 Three Cent Pieces.....	28,395 00

1,041,310 Pieces.....\$46,435 00

Copper.

1,016,517 Cents.....\$10,165 17

2,665,827 Pieces.....\$3,709,858 17

A large surplus of Gold Dollars and Quarter Eagles, beyond the demands of the depositors, still remain in the Treasury.

EXPORTS FROM NEW YORK—JUNE.

	1848.	1849.
Dom. Mdse.....	\$2,235,844	\$3,317,740
For. free.....	12,213	29,464
For Dut'le.....	147,017	416,428
Spe. & Bul.....	1,971,915	596,411

Total.....\$4,366,989 \$4,360,043

	1850.	1851.
Dom. Mdse.....	\$3,971,207	\$3,778,289
For. free.....	51,887	56,435
For Dut'le.....	442,493	265,290
Spe. & Bull.....	880,434	6,462,367

Total.....\$5,346,021 \$10,562,381

The aggregate of March—and in deducting the specie is:—

June, 1848.....	\$2,395,074	1850.....\$4,465,587
June, 1849.....	3,763,632	1851.....4,099,014

SALES OF STOCK IN NEW YORK.

	June 26.	July 3.
Sales.	Sales.	
U. S '67 Loan.....	116 1/2	116 1/2
Erie R.R.....	83 1/2	83 1/2
Harlem R.R.....	73 1/2	74
Stonington.....	44 1/2	44 1/2
L.I. R.R.....	18 1/2	17 1/2
Norwich & Wor.....	61	60
Del. & Hudson.....	121 1/2	121 1/2
Reading.....	56 1/2	57 1/2
Morris Canal.....	16 1/2	16 1/2
Erie income.....	97 1/2	96 1/2
" " Bonds.....	103	103 1/2
Canton.....	73	70
Farmers Loan.....	69	69

SALES OF STOCKS IN BOSTON.

	June 25.	July 2.
Sales.	Sales.	
Old Colony Railroad.....	68	67 1/2
Boston and Maine R.R.....	104	103 1/2
Eastern Railroad.....	102 1/2	102
Fitchburg Railroad.....	110	109 1/2
Michigan Central Railroad.....	103	103 1/2
Northern Railroad.....	70 1/2	70
Vermont Central Railroad.....	35 1/2	36
Vermont and Mass. R.R.....	30 1/2	30 1/2
Western Railroad.....	100	103 1/2
Ogdensburg Railroad.....	37 1/2	37 1/2
Rutland Railroad.....	55	53
Boston and Worcester Railroad.....	103 1/2	103 1/2
Rutland Railroad Bonds.....	97	97
Ogdensburg Railroad Bonds.....	99	98
Vermont Central R.R. Bonds.....	91 1/2	91 1/2
Boston and Providence R.R.....	90	89 1/2
Philadelphia, Wilm'gton & Balt.	30	30
Concord R.R.....	55	54 1/2

Manufacturing of Pittsburgh.

Thirteen rolling mills. Capital \$5,000,000—2,500 hands. Consume 60,000 tons of pig metal, and produce bar iron and nails amounting to \$4,000,000 annually.

Thirty large foundries, with several smaller ones. Capital in all 2,000,000—2,500 hands. Consume 20,000 tons pig metal, and yield annually articles amounting to \$2,000,000.

Two establishments for manufacturing locks, latches, coffee mills, scales and other iron castings. Capital \$250,000—500 hands. Consume 1,200 tons metal, and producing goods amounting to \$3,000,000 annually.

Five large cotton factories, and several smaller ones. Capital \$1,500,000—1,500 hands. Consume 15,000 bales of cotton, and return yarns, sheeting, batting, &c., to upwards of \$1,500,000 per annum.

Eight flint glass manufactories. Capital \$300,000—500 hands. Consuming 150 tons lead and 200 tons pearl ash; and producing various articles of glass were amounting to \$400,000 annually.

Seven phial furnaces and eleven window glass manufactories. Capital \$250,000, employing 600 hands, and producing \$600,000 annually.

One soda ash manufactory, producing 1,500 tons annually—75 hands.

One copper smelting establishment, producing 600 tons refined copper annually, valued at \$380 per ton, and amounting to \$250,000.

One copper rolling mill in operation, producing 300 tons sheathing and brazier's copper, amounting to 150,000 annually.

Five white lead factories. Capital \$150,000. Produce 150,000 kegs lead annually, worth \$200,000—employing 60 hands.

There are also a number of manufactories of the smaller sizes of iron, several extensive manufactories of axes, hatchets, &c., and spring steel, steel springs, axles, anvils, vices, mill, cross-cut and other saws, gun barrels, shovels, spades, forks, hoes, cut tacks, brads, &c. After careful investigation the full value does not fall short of \$50,000,000 annually. There is also consumed about 12,000,000 bushels of coal per year, worth \$600,000, and an equal number of bushels exported to markets near the city, giving employment constantly to 4,000 hands.

Superintendent of a Railroad.

THE Post of Superintendent of a Railroad is wanted by a middle aged man, who can give satisfactory evidence of his capacity, integrity and qualifications for such a situation. Letters addressed to A.B., care of the Editor of the Railroad Journal, New York, (to whom the above would refer), will receive immediate attention.

New York, June 11, 1851.

**S. S. Keyser & Co.,
IRON WAREHOUSE,**

Corner of South and Pratt Streets,
BALTIMORE, MD.

Selling Agents for the Rough and Ready Bar Iron and Elk Boiler and Flue Iron Rolling Mills, Sarah and Taylor Furnaces, and Wrightsville Hollow Ware Foundry, and Dealers in Bar and Sheet Iron, and Cast, Sheer, German, Blister, Spring and Electrodes Steel, etc., etc.

**To Railroad Companies.
SALISBURY REFINED IRON.**

THE Undersigned, having enlarged and perfected his Works, is now prepared to furnish Locomotive Tires of a better quality than have heretofore been used. Railroad Companies who may wish it, will be furnished with a set for trial, not to be paid for until they are satisfied of their superior quality over any other. Also made at short notice, and in the best manner, Locomotive Cranks, Engine and Car Axles, and other Locomotive Forgings.

All work ordered from me will be made of Salisbury Iron, and done in the best manner.

Address HORATIO AMES,
Falls Village, Conn.

May 1, 1851.

Spikes, Spikes, Spikes.

ANY person wishing a simple and effective Spike Machine, or a number of them, may be supplied by addressing J. W. FLACK, Troy, N. Y. or MOORE HARDAWAY, Richmond, Va.

March 6, 1850.

To Contractors.

PROPOSALS are invited for laying the superstructure on the first 38 miles of the Manassas Gap Railroad, up to Farrowville;—the work to be commenced in August next. Plans and specifications may be seen at the office in Alexandria, after the 28th inst. Bids will be received up to the 5th of July

ENGINEER'S OFFICE, ALEXANDRIA.

Notice to Contractors.

Engineers Office, E. T. & V. R. R. Company, Greenville, E. T., June 5th, 1851.

PROPOSALS will be received until the 1st day of October next, for the Grading and Masonry of that part of the E. T. & V. Railroad between the Eastern terminus of said road at King's Meadow, and Rheatown, in Greene County, a distance of about forty seven miles. A large amount of very heavy work, both in Grading as well as Masonry, will be found on this division, offering strong inducements to able Contractors.

Maps, Profiles, and Specifications can be seen at this Office, on and after the 20th of July next.

The Company reserve the right to reject all, or any proposals that they deem unsatisfactory.

Proposals should be directed to the Treasurer and Secretary of the E. T. & V. Railroad Company, Jonesborough, E. T.

LLOYD TILGHMAN,
Chief Engineer.

**SUPERIOR BLACK WRITING & COPYING
INK.****Jones' Empire Ink.**

87 Nassau st., Sun Building, New York city.
Net prices to the trade—
Quarts, per dozen, \$1 50 6 oz. per dozen, \$0 50
Pints, " 1 00 4 " " 0 37 1/2
3 ounces, " 0 62 1/2 2 " " 0 25

On draught per Gallon, 20 cents.
This is the best Ink manufactured. It flows freely, is a good copying ink, and will not mould, corrode, precipitate or decay. Orders for export, or home consumption, carefully and promptly attended to by
21tf THEODORE LENT.

**Lovegrove's Patent Cast Iron
Water and Gas Pipes.**

THE Subscriber, the Inventor and Patentee of the Centrifugal mode of giving form to metallic substances while in a molten state, is preparing to make Cast Iron Water and Gas Pipes, of any dimensions, at prices much lower than they can be made in the old manner, and the pipes warranted to stand a pressure of three hundred pounds to the square inch, and to be soft enough to drill. Steam Engines and all kinds of machinery. Cast Iron Doors and Frames, and Mill Castings of every description, made to order.

THOMAS J. LOVEGROVE,
Machinist and Founder,
West Falls Avenue, below Pratt st., Baltimore.

Railway Iron.

3000 TONS, 50, 57, and 60 lb. Rails, made of best English Iron and under particular specifications.

Also:
Rails imported on commission or at a fixed price, delivered at a port in England, or at any port in the United States. Apply to

DAVIS, BROOKS & CO.,
June 5, 1851. 23 Beaver st., New York.

**Wheel, Forge and Foundry
Iron.**

LOCUST GROVE Wheel Iron of great strength and superior chilling property.

Belt Charcoal Forge Iron, from Patuxent, Curtis Creek and Gunpowder furnaces.

Elkridge Foundry Iron, of superior strength and softness. Anthracite and Charcoal Iron from Pennsylvania and Virginia. Gas and Water Pipes, Lamp Posts from Elkridge furnace.

LEMMON & GLENN,
\$m9 62 Buchanan's Wharf, Baltimore.

Railroad Iron.

CONTRACTS made by the subscribers, agents for the manufacturers, for the delivery of Railway Iron, at any port in the United States, at fixed prices, and of quality tried and approved for many years, on the oldest railways in this country.

RAYMOND & FULLERTON, 45 Cliff st.

TO CONTRACTORS.

Engineer's Office, S. S. R. Road Co.,
Petersburg, Va., May 27, 1851.

PROPOSALS will be received at the Engineer's office, South Side Railroad, at Petersburg, Va., until the 31st of July next, for the construction of Appomattox Bridge, to be erected near Farmville.

The Bridge will be about 3000 feet long and 80 feet high; to consist of a wooden superstructure resting on abutments and piers.

The piers will be of brick or stone, to be determined after receiving the proposals.

Good brick earth can be obtained near the site of the Bridge.

The proposals may be made for the structure complete, or for the various items of work and materials, viz.: Masonry, furnishing Bricks or Timber; workmanship of laying Bricks and workmanship of superstructure.

Security will be required for the fulfilments of the contracts, and it will be necessary that each proposal be accompanied with a letter from a responsible person or persons, stating that they will become security.

C. O. SANFORD,
Ch. Engineer, S. Side R. Road.

Notice to Contractors.

Columbus, Piqua and Indiana Railroad.

SEALED PROPOSALS will be received at the Engineer's Office of the Columbus, Piqua and Indiana Railroad Company, at Urbana, on the 8th day of July, 1851, for the Grubbing, Grading and Masonry of that portion of the line extending from St. Paris, in Champaign county, to Columbus, a distance of fifty-six miles. Plans and specifications of the work may be seen from the 1st to the 8th of July, at the office. The Directors reserve the right to retain bids for twenty days after the 8th, before declaring the work.

The names in full of all the parties should be given in the proposals.

A. G. CONOVER, Engineer.
Piqua, May 20, 1851. 3:22

Railroad Iron.

THE Subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of Railroad iron at any port in the United States or Canada, or at a shipping port in Wales.

WAINWRIGHT & TAPPAN,
29 Central Wharf.

Boston, June 1, 1851.

Bowling Tire Bars.

40 Best Flange Bars 5 1/2 x 2 inches, 11 feet long.
40 " " 5 x 2 " 7 feet 8 in. long.
40 " Flat " 6 x 2 " 11 feet long.
40 " " 6 x 2 " 7 feet 8 in. long.

Now in store and for sale by
RAYMOND & FULLERTON,
45 Cliff street.

Car Wheel Iron.

100 Tons "Columbia" No. 2 Cold Blast Charcoal Iron.

300 Tons "Salisbury" No. 1, do. do.
For sale by CHARLES T. GILBERT,
No. 80 Broad st.

New York, Sept. 21, 1850.

**JOHNSON, CAMMELL & Co's
Celebrated Cast Steel,**

AND
ENGINEERING AND MACHINE FILES,
which for quality and adaptation to mechanical uses, have been proved superior to any in the United States. Every description of square, octagon, flat and round cast steel, sheet, shovel and railway spring steel, best double and single shear steel, German steel, flat and square, goat stamps, etc. Saw and file steel, and steel to order for any purposes, manufactured at their Cy-clops Steel Works Sheffield.

JOHNSON, CAMMELL & CO.,
24 Cliff St., New York.

November 23 1843.

Railroad Spikes.

THE subscribers are prepared to make and execute contracts for Railroad Spikes of a superior quality manufactured by the New Jersey Iron Company, at Boonton.

DUDLEY B. FULLER & CO.
139 Greenwich st. corner of Cedar.

To Railroad Companies, etc.



The undersigned has at last succeeded in constructing and securing by letters patent, a Spring Pad-lock which is secure, and cannot be knocked open with a stick, like other spring locks, and therefore particularly useful for locking Cars, and Switches, etc.

I also invite attention to an improved PATENT SPRING LOCK, for SLIDING Doors to Freight and Baggage Cars, now in use upon the Pennsylvania Central, Greenville and Columbia, S.C., Reading, Pa., and other Railroads.

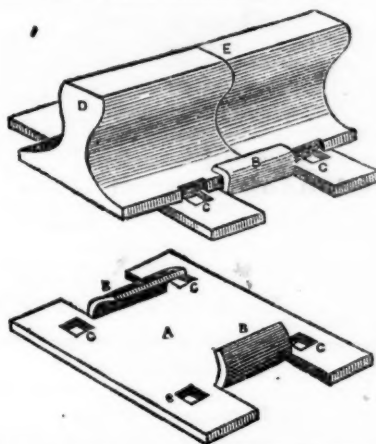
Companies that are in want of a good Pad-lock, can have open samples sent them that they may examine and judge for themselves, by sending their address to

C. LIEBRICH,

46 South 5th St. Philadelphia.

May 9, 1851.

The American Railroad Chair Manufacturing Co.



ARE prepared to make WROUGHT IRON RAIL ROAD CHAIRS, of various sizes, at short notice.

By use of the WROUGHT IRON CHAIR, the necessity of the wedge is entirely done away—the lips of the chair being set, by means of a sledge or hammer, close and firmly to the flange of the rail.

The less thickness of metal necessary in the Wrought Iron Chair gives much greater power and force to the spikes when driven—and consequently a much less liability to the spreading of the rails by reason of the spikes drawing or becoming bent.

The less weight necessary in the Wrought Iron Chair, will enable us to furnish them at a cost much below that of CAST IRON CHAIRS.

DESCRIPTION OF THE ABOVE CUTS.

Figure 1 is a perspective view of the rail secured in the chair, and fig. 2 is a perspective view of the chair itself. D, E, are sections of two rails placed together, and secured at the joint on the chair by the jaws B, E. The chair is bolted down by spikes C, C. In fig. 2, the chair is represented as made of a single block or plate A of wrought iron.

The chair is set in its proper place on the track, spiked down, and the ends of the two rails brought together within the jaws as represented in fig. 1.

For further information address,

N. C. TROWBRIDGE, Secretary,
Poughkeepsie, N. Y.

June 1, 1851.

Railroad Commission Agency.

THE Subscriber offers his services to Railroad Co's and Car Makers for the purchase of equipment and furniture of roads and depots and all articles and materials required in the construction of cars, with cash or approved credit. No effort will be spared to select the best articles at the lowest market price.

He is sole Agent for the manufacture of the ENAMELED CAR LININGS, now in universal use. The best Artists are employed in designing new styles, and he will make to order pieces with appropriate designs for every part of the car, in all colors, or with silver grounds and bronzed or velvet figures.

He is also Agent for Page's Car Window Sash Fasteners, which is preferred by all who have used it to any other.

CHARLES STODDER,
75 Kilby st., Boston.

June 20, 1851.

3m.

LOWMOOR AND U. S. BEST FINCH IRON. To Iron Merchants.

JOHN FINCH & SONS, Iron Merchants, Liverpool, now are, and for more than twenty years past have been, sole Agents for the LOWMOOR IRON COMPANY, for the United States and Canada, for the sale of their well known R. ilway Tire Bars, and Axles, Piston Rods, Boiler Plates, Angle, Rivet, and all other kinds of Lowmoor Iron: also, sole Agents for the sale of the superior St. ffordshire Iron stamped "FINCH CROWN" and "U. S. BEST FINCH;" and Merchants and Wholesale Dealers in all other kinds of British Iron.

We hereby inform our friends and the public that we have this day appointed Mr. WM. BAILEY LANG, of Boston, as our only representative to receive orders and to transact our general business in the United States.

For JOHN FINCH & SONS.,
JOHN FINCH Sen.

Boston, April 11, 1851.

LOWMOOR and other Bent, Welded and Blocked RAILWAY TIRES, ready for use, E. FINCH'S Patent Dovetailed and other kinds of WROUGHT IRON RAILWAY WHEELS, with, or without the finished Axles, for Locomotives and for Passenger and Merchandise Cars, also Wrought Iron Railway Chairs, Railway Spikes, etc.

To the Managers of Railways, Engineers and others: Gentlemen:—We, FINCH & WILLEY, Engineers, Liverpool, Manufacturers of the above articles, respectfully inform you that we have this day appointed Mr. WM. BAILEY LANG, of Boston, as our sole Agent for the sale of said articles, and the transaction of our business in the United States of America, and for whom we solicit your kind attention and patronage.

For FINCH & WILLEY,
JOHN FINCH, Sen.

Boston, April 11, 1851.

Having accepted the above Agencies, I beg leave to solicit your orders, which shall at all times receive my prompt and careful attention. Please address all communications either to MESSRS. JOHN FINCH & SONS or MESSRS. FINCH & WILLEY, Liverpool; or to me, at my Steel Warehouse, No. 9 Liberty Square, Boston. Yours very respectfully,

WM. BAILEY LANG.

Boston, April 11, 1851.

The following are testimonials of the quality of FINCH & WILLEY'S WROUGHT IRON RAILWAY WHEELS from the Yorkshire and Lancashire Railway Co., one of the largest in Great Britain, and from the London and North Western Railway Co., the largest Railway Company in the world.

LONDON AND NORTH WESTERN RAILWAY,
(Northern Division.)

WAGON DEPARTMENT, ORDSALL LANE,
Manchester, January 4, 1851.

Gentlemen:—I have very great pleasure in bearing my testimony to the excellent quality of your Wrought Iron Railway Wheels.

This Company have many of them now in use on their lines, and during my experience, as their Superintendent, which is now upwards of 9 years standing, I have not known any of them to fail during that time.

I am, Gentlemen, yours, truly,

OWEN OWENS.

MESSRS. FINCH & WILLEY,
Windeor Foundry.

LANCASHIRE AND YORKSHIRE RAILWAY,
Wagon Department, Jan. 3, 1851.

Messrs. Finch & Willey,

Gentlemen: In reply to your request writing me to give my opinion of the 700 sets of Wrought Iron Wheels you furnished this company during the years 1847 and 1848, I have much pleasure in stating that we have not had a single instance of your Wheels failing in any respect, and I consider them equal if not superior to any Wheels we have on this line of railway. The Tires being LOWMOOR Iron, 1 1/2 inch thick, I have no doubt they will run under ordinary goods' wagons 12 years without any repairs more than the tires turning up.

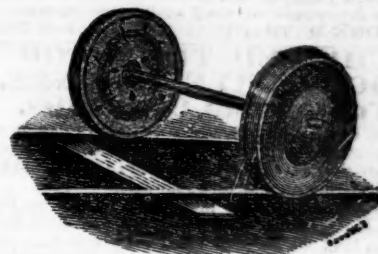
I am Gentlemen,
Yours, truly, WM. EMMETT.

NOTE.—4 Wheels and 2 Axles are one set, consequently this order contained 200 WHEELS and 100 AXLES; value over \$100,000.

Boston Locomotive Works, —Late Hinkley & Drury— No. 380 Harrison Avenue, BOSTON.

Locomotive and Stationary Steam Engines; Boilers; Iron, Brass, Copper and Composition Castings; Coppersmith's Work, and all kinds of Railroad Machinery furnished at short notice.

ALSO



Van Kuran's Improved Railroad Wheel,

Patented May 1, 1849. Manufactured under the personal superintendence of the Patentee, as above.

Orders for any quantity of wheels executed with dispatch, and wheels and axles fitted in the very best manner and at the lowest rates. Address

DANIEL F. CHILD, Treasurer, Boston.



Providence Tool Co.,

MANUFACTURERS OF

Plane Irons, Tooth Irons, Soft Moulding and Rabbet Irons, Cornice Irons, Plow Bits, and Planing Machine Knives:

NUTS, WASHERS AND BOLTS.

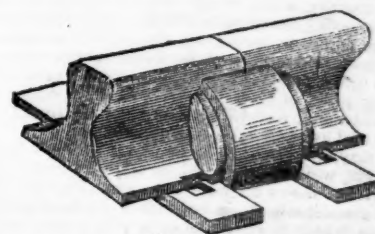
—ALSO—

PLATE HINGES AND PICK AXES.

They are prepared to execute orders for all descriptions of Cold Punching and Job Work.

WM. FIELD, Agent. RUFUS WATERMAN, Treas.
PROVIDENCE, R. I.

Railroad Iron, SPIKES, AND WROUGHT IRON CHAIRS.



THE Undersigned, Agent for Manufacturers, is authorized to contract for Welsh Railroad Iron of the best quality, and deliverable at any port on favorable terms, also Spikes and Wrought Iron Chairs, made from the best iron, and of any pattern and weight. The new Wrought Iron Chair, with the introduction of a "Key," as per the annexed plan, will be found a great improvement on the old pattern.



Boiler Plates of superior quality, perfect regularity in the squaring and thickness, and made with great care.

Samples can be seen at the office, No. 20 Beaver &
CHARLES ILLIUS

RAILROAD CAR MANUFACTORY

TRACY & FALES,
GROVE WORKS, HARTFORD, CONN.
Passage, Freight and all descriptions of
RAILROAD CARS,

AS WELL AS
LOCOMOTIVE TENDERS,
Made to order promptly.

The above is the Largest Car Factory in the Union.
In quality of Material, and in Workmanship, Beauty
and Good Taste, as well as Strength and Durability,
we are determined our work shall be unsurpassed.

JOHN R. TRACY. THOS. J. FALES.

**CHILLED TIRES FOR
LOCOMOTIVE ENGINES.
To Railroad Companies.**

THE Undersigned, Assignee of Letters Patent, respectfully invites the attention of Railroad Companies to the CHILLED TIRES for LOCOMOTIVE ENGINES, which he offers for sale.

These Tires were first introduced by Messrs. Perkins & McMahon, upon the Baltimore and Ohio Railroad, in 1843, where, after a long and severe trial, they were generally adopted, on both passenger and freight engines, and now have entirely superseded Wrought Tires on that road, on which are many engines of the heaviest class, which ascend grades of eighty-five feet per mile, taking with them one hundred and twelve tons, exclusive of cars. This performance shows in some measure the adhesive character and strength of the Tire.

During a service of seven years, these Tires have very much exceeded in durability those of wrought iron, while their first cost, and expense of repairs, is more than fifty per cent. less. They also retain more equally their diameter and proper form of tread, which is a point of much value in engines with coupled wheels.

It is believed these Tires are peculiarly well adapted to freight engines, as the objection to coupling the wheels of locomotives is the increased friction, arising principally from the unequal wear of wrought tires; and hence most of the freight engines where wrought tires are used, have but four wheels as drivers, with frequently a weight of sixteen tons, or more, upon them. Which may be of no disadvantage to the engine, although its effect upon the track is like a car with sixteen tons upon four wheels, and it is presumed no one would permit cars so heavily loaded to pass over their road.

As Chilled Tires wear more uniformly than those of wrought iron, there can be no doubt when these are used, that the weight necessary for adhesion may be distributed upon more driving wheels, without any material disadvantage to the engine, and thus placing less weight upon a single point, would relieve the track, and secure, to a great extent, the object sought to be gained by the plan so frequently proposed, of using light engines, which would bring with it the necessity of increasing the number of trains and train hands.

The complete success of Chilled Tires upon the Baltimore and Ohio road for the last seven years, and upon other roads for a more subsequent period, is a strong proof of their practical character, while their cheapness and durability, it is believed, recommend their trial by every railroad company.

It may be thought by some that the whole wheel for strength, would be preferable to wheels with tires, but experience shows the latter to be a much stronger and more durable wheel, on account of its freedom from tension, which is never the case with a whole wheel. That TENSION has much to do with the breaking of wheels and tires, may be inferred from the fact, that a set of chilled tires, five feet diameter, on a first class passenger engine, have been in constant service during the past winter, on one of our Eastern roads, and have withstood the severities of the season, where whole wheels and wrought tires have broken. And it may be proper to remark, that wherever chilled tires have been introduced, whole wheels as drivers are invariably abandoned, they being far more expensive to maintain, as there is a crank to form as often as a wheel is renewed, which is not the case on the renewal of a tire.

The peculiar manner of fastening these tires to the wheel without shrink, applies equally well to wrought tires, and is of much importance where they are used, as it secures them against the TENSION or STRAIN they receive by the present plan of shrinking them to the wheels, which undoubtedly is the cause of wrought tires breaking so frequently, particularly in cold weather, which produces a greater contraction of the tire, thereby increasing the strain. This plan makes the tire perfectly secure upon the wheel, and is attended with less expense, as will be seen by the following testimonials, which are respectfully submitted.

Lowell, March, 1851. L. B. TYNG.

TESTIMONIALS.

Baltimore and Ohio R. R. Office, }
Jan. 2, 1850.

Mr. L. B. TYNG, Lowell, Mass.—Sir: Your favor of the 26th ult., is before me, asking my opinion of the Chilled Cast Iron Tires, of Messrs. Perkins & McMahon, patentees. I do not hesitate to speak favorably of them, nor to say that I would give them the preference over wrought iron tires, whenever the adhesive tenacity of the latter to the rails is not all called for, there being somewhat less adhesion to the chilled wheel.

This can, however, scarcely be called a practical point, as nearly all of the Passenger Engines now in use have a surplus of adhesion, and nearly all Freight Engines being provided with the sand box, for emergencies arising from sharp curves, heavy grades or wet rails.

The Chilled Tire is very much cheaper in first cost, will last longer, and offers a facility for putting it on the wheel, rendering comparison with the wrought iron tire an absurdity—it not being necessary even to take the wheels from the machine for the purpose.—Many of them are in successful use on this road, and I consider its curves and other peculiarities the most severe of all existing tests. One set of five feet in diameter, has run 50,000 miles under one of our Passenger Engines, and will to all appearance, run as many more; and, in the mean time, they have not cost a dollar for repairs or adjustment.

It may be suggested that they might not stand a Northern frost. This is possible; but I believe otherwise, as the weather here is occasionally as severe as in Boston, and if I had charge of a northern road, after the experience I have had here, I would make their trial one of my very first acts.

Respectfully your Ob't Serv't,
WM. PARKER, General Supt., etc.

January 29, 1851.

Philadelphia, Wilm. and Balt. R. R. Office, }
Wilmington, Del.

Mr. L. B. TYNG—Sir: We have used the solid Cast Iron Chilled Wheel, and Cast Iron Chilled Tire, for engine drivers, on this road since 1842. When wrought iron tires under new engines, purchased from time to time, wear out, I invariably replace them with the Chilled Tire of Messrs. Perkins & McMahon, patentees.

These Tires will last, on the average, three times as long as wrought tires; seldom requiring renewals under three years, and lasting much longer usually. We have a set which has been in constant use for five years, and still in fair order. The adhesion supplied by the Chilled Tires, I find in practice with engines of the same model and weight, to be equal to that given by wrought tires. This is certainly a fact, though not an acknowledged one, in general. Those who think otherwise, will in time change their opinions.

I am of opinion that the Chilled Tire is as safe as the wrought, at any temperature. In eight years use, we have broken but one tire out of more than fifty, and that by a violent concussion on the occasion of a run off.

The use of the Chilled Tire, and the ease and rapidity with which it may be replaced, would certainly enable a road to do the same amount of work with fewer engines—since but little time would be lost in laying up an engine for new tires, or for turning down old ones, as must be done when wrought tires are used.

I am yours respectfully,
I. R. TRIMBLE,
Engineer and General Supt.

Office Eastern R. R., Salem, Dec. 23, 1850.

L. B. TYNG, Esq.—Sir: Your favor of Nov. 30th, inquiring respecting the Chilled Cast Iron Tires, came duly to hand, and in answer, I will say, that this road have in use one set cast and fitted to the wheel, by Messrs. Bush & Lobdell, upon a twenty ton first class Passenger Engine, which has run in eight months, 26,639 miles, and to all appearance, are about as good as when they first commenced running.

In regard to the comparative expense of the cast or wrought iron tires, I do not hesitate to say that the difference would be vastly in favor of the former.

I have ordered a second set, and they will be put on to the engine immediately. Respectfully,
JOHN KINSMAN, Supt. E. R. R.

Chilled Tires for the various sized wheels, or wheels with either chilled or wrought tires fitted up upon this plan, may be had of the following persons:

ALDRICH, TYNG & Co, Lowell, Mass.
SMITH & PERKINS, Alexandria, Va.

Rights for using Tires upon the above plan, may be had on reasonable terms, of L. B. TYNG, Lowell, N. York.

Railroad Iron.

THE UNDERSIGNED, HAVING made arrangements abroad, are prepared to contract for the delivery of Foreign rails, of approved brands upon the most favorable terms.

They will also make contracts for American rails, made at their Trenton works, from Andover Iron, in whole or in part, as may be agreed upon.

They are prepared to furnish Telegraph, Spring and Market Wire; Braziers and Wire Rods; Rivets and Merchant Bars to order, all made exclusively from Andover Iron. The attention of parties who require iron of the very best quality for special purposes, is respectfully invited.

COOPER & HEWITT,
17 Burling Slip, New York.

February 15, 1850.

Railroad Lanterns.

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by

HENRY N. HOOPER & CO.,
No. 24 Commercial St. Boston.

August, 16, 1849.

6m33

Railroad Iron.

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron.

THOMAS B. SANDS & CO.,
73 New street,
New York.

February 3, 1849.

Glendon Refined Iron.

Round Iron, Band Iron, Hoop Iron,
Square " Flat " Scroll "

Axles, Locomotive Tyres,
Manufactured at the Glendon Mills, East Boston, for
sale by GEORGE GARDNER & CO.,
5 Liberty Square, Boston, Mass.
Sept. 15, 1849. 3m37

ENGINEERS.

Atkinson, T. C.,

Mining and Civil Engineer,
Orange and Alexandria Railroad, Alexandria, Va.

Clement, Wm. H.,

Little Miami Railroad, Cincinnati, Ohio.

Cozzens, W. H.,

Engineer and Surveyor, St. Louis, Mo.

Alfred W. Craven,

Chief Engineer Croton Aqueduct, New York.

C. Floyd-Jones,

Central Railroad, Decatur, Illinois.

Gay, Edward F.,

Columbia and Philadelphia Railroad, Philadelphia Pa.

Gilbert, Wm. B.,

Rutland and Burlington Railroad, Rutland, Vt.

Gzowski, Mr.,

St. Lawrence & Atlantic Railroad, Montreal, Canada.

Grant, James H.,

Nashville and Chattanooga R. R., Nashville, Tenn.

S. W. Hill,

Mining Engineer and Surveyor, Eagle River,
Lake Superior.

Holcomb, F. P.

Southwestern Railroad, Macon, Ga.

Latrobe, B. H.,

Baltimore and Ohio Railroad, Baltimore, Md.

Miller, J. F.,

Buffalo and Conhocton Valley Railroad, Bath, N. Y.

Morris, Elwood,

Engineer, Chartiers Co., Pittsburgh, Penn.

Nott, Samuel,

Lawrence and Manchester Railroad, Boston.

Osborne, Richard B.,

Civil Engineer, Philadelphia.

Prichard, M. B.,

East Tennessee and Georgia R. R., Cleveland, Tenn.

W. Milnor Roberts,

Bellevue and Indiana Railroad, Marion, Ohio.

Roberts, Solomon W.,

Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Sanford, C. O.,

• South Side Railroad, Virginia.

Schlatter, Charles L.,

Northern Railroad (Ogdensburg), Malone, N. Y.

Steele, J. Dutton,

Pottstown, Pa.

Trautwine, John C.,

Civil Engineer and Architect, Philadelphia.

Tinkham, A. W.,

United States Fort, Bucksport, Me.

Troost, Lewis,

Alabama and Tennessee Railroad, Selma, Ala.

Whipple, S.,

Civil Engineer and Bridge Builder, Utica, N. Y.

HOTELS.**DAVIS'S****ALHAMBRA HALL,**No. 136 Pratt street,
BALTIMORE.**Exchange Hotel,**Adjoining Eastern Railroad Depot,
BUFFALO, N. Y.BY.....**FRISK & SPERRY,**
Late of Delevan House, Albany.**MANSSION,**Corner of Maine and Exchange Streets,
P. DORSHIMER. **BUFFALO.****Barnum's City Hotel,****MONUMENT SQUARE, BALTIMORE.**

This Extensive Establishment, erected expressly for a Hotel, with every regard to comfort and convenience, is situated in the centre and most fashionable part of the city, and but a few minutes' walk from the Railroad Depots and Steamboat Landings.

The House has lately undergone a thorough repair, embracing many valuable improvements, and will accommodate 250 Guests. **BARNUM & CO.****American Hotel,**Pratt street, opposite the Railroad Depot,
BALTIMORE.**HENRY M. SMITH.....Proprietor.**

Late of the Exchange & St. Charles Hotels, Pittsburgh

Washington Hotel,**BY JOHN GILMAN,**

\$1 Per Day.

No. 206 Pratt street, (near the Depot),
BALTIMORE.**GUY'S****United States Hotel,**(Opposite Pratt street Railroad Depot),
BALTIMORE.**JOHN GUY.** **WILLIAM GUY.****DUNLAP'S HOTEL,**On the European Plan,
NO. 135 FULTON STREET,
Between Broadway and Nassau St.,
NEW YORK.**JONES' HOTEL,****NO. 152 CHESTNUT STREET,**
PHILADELPHIA.**BRIDGES & WEST,** **Proprietors.****Fountain Hotel,****LIGHT STREET, BALTIMORE,****THURSTON.....Proprietor.****BUSINESS CARDS.****Walter R. Johnson,****CIVIL AND MINING ENGINEER AND AT-**
torney for Patents. Office and Laboratory, F St.,
opposite the Patent office, Washington, D. C.**Lithography.****JOHN P. HALL & CO.,**

161 Main st., Buffalo, (Commercial Advertiser Build.)

Are prepared to execute all kinds of Lithography in good style and at reasonable rates. Particular attention will be paid to Engraving Railroad Maps, Engineer's Plans and drafts, etc., and orders in this line are respectfully solicited.

Cumberland, (Md.) Coals for Steaming, etc.**ORDERS RECEIVED FOR AND FILLED**
by **J. COWLES, 27 Wall St., N. Y.****J. & L. Tuckerman,****IRON COMMISSION MERCHANTS,**

AND MANUFACTURERS OF

ULSTER BAR & POUGHKEEPSIE PIG IRON,
69 WEST STREET,
NEW YORK**Henry I. Ibbotson,****IMPORTER of Sheffield and Birmingham Goods.**
Also, Agent for the Manufacture of Telegraph Wire.
218 PEARL ST., NEW YORK.**Charles T. Jackson, M. D.,****STATE ASSAYER,** late Geologist to Maine, Rhode Island, New Hampshire, and the United States, offers his services to his friends and the public in making any Chemical, Mineralogical or Geological researches that may be required for the improvement of Agriculture and the Manufacturing Arts. Particular attention will be paid to the exploration of mines and to assaying of ores of the metals.State Assayer's office, 31 Somerset st.
Boston Sept. 3, 1850.**STEEL AND FILES.****R. S. Stenton,**

20 CLIFF STREET, NEW YORK,

AGENT FOR

J. & RILEY CARR,**BAILEY-LANE WORKS, SHEFFIELD,**

Manufacturers of Cast, Shear, German, Blister, and

Spring Steel,

Of all descriptions, Warranted Good.

FILES.

Manufacturers of Machinists' Warranted Best Cast Steel Files, expressly for working upon Iron and Steel, made very heavy for recutting.

A full Stock of Steel and Files at all times on hand. 6m4

Dudley B. Fuller & Co.,**IRON COMMISSION MERCHANTS,**

No. 139 GREENWICH STREET,

NEW YORK.**Manning & Lee,****GENERAL COMMISSION MERCHANTS,**

NO. 51 EXCHANGE PLACE,

BALTIMORE.

Agents for Avalon Railroad Iron and Nail Works. Maryland Mining Company's Cumberland Coal 'CED'—'Potomac' and other good brands of Pig Iron.

Samuel Kimber & Co.,**COMMISSION MERCHANTS****WILLOW ST. WHARVES, PHILADELPHIA.****AGENTS for the sale of Charcoal and Anthracite**

Pig Iron, Hammered Railroad Car and Locomotive Axles, Force Pumps of the most approved construction for Railroad Water Stations and Hydraulic Rams, etc., etc.

July 27, 1849.

James Herron, Civil Engineer,**OF THE UNITED STATES NAVY YARD,****PENSACOLA, FLORIDA,**

PATENTEE OF THE

HERRON RAILWAY TRACK.

Models of this Track, on the most improved plans, may be seen at the Engineer's office of the New York and Erie Railroad.

PLUSHES

FOR

Railway Cars & Omnibuses.**F. S. & S. A. MARTINE,**

112 WILLIAM ST., NEAR JOHN.

ARE now receiving a large and complete assortment of Plain and Figured PLUSHES, of their own importation, which will be sold at the lowest market price, viz: Crimson, Maroon, Scarlet, Green, Blue, Purple, etc.

ALSO—CURLED HAIR, the best manufactured in market.**To Railroad Companies,****Machinists, Car Man-****ufacturers, etc., etc.****CHARLES T. GILBERT,**

NO. 80 BROAD ST., NEW YORK,

IS prepared to contract for furnishing at manufacturer's prices—

Railroad iron,

Locomotive Engines,

Passenger and Freight Cars,

Car Wheels and Axles,

Chairs and Spikes.

Orders are invited; and all inquiries in relation to any of the above articles will receive immediate attention

Manufacture of Patent Wire**ROPE AND CABLES,**For Inclined Planes, Suspension Bridges, Standing Riggering, Mines, Cranes, Derrick, Tilters, &c., by **JOHN A. ROEBLING, Civil Engineer,****TRENTON, N. J.****FORGING.****Ranstead, Dearborn & Co.,**

MANUFACTURERS OF

LOCOMOTIVE CRANKS AND CAR AXLES,

ALSO

WROUGHT IRON SHAFTING,

And All Kinds of Hammered Shapes.

Office 25 Foster's Wharf, Boston.

Samuel D. Willmott,**MERCHANT, AND MANUFACTURER OF****CAST STEEL WARRANTED SAWS,**

—AND FILES—

IMPORTER OF THE

GENUINE WICKESRLY GRINDSTONES**NO. 8 LIBERTY STREET,****NEW YORK.****Railroad Instruments.****THEODOLITES, TRANSIT COMPASSES,** and Levels, with Fraunhoffer's Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by**E. & G. W. BLUNT,**No. 179 Water St., cor. Burling Slip,
New York, May 19, 1849.**IRON.****Iron.**

Pig Iron, Anthracite and Charcoal; Boiler and Flue Iron, Spring and Blistered Steel, Nail Rods, Best Refined Bar Iron, Railroad Iron, Car Axles, Nails, Stove Castings, Cast Iron Pipes of all sizes, Railway Chairs of approved patterns for sale by

COLEMAN, KELTON & CABELL,

109 N. Water St., Philadelphia.

Iron Store.

THE Subscribers, having the selling agency of the following named Rolling Mills, viz: Norristown, Rough and Ready, Kensington, Triadelphia, Pottsgrove and Thorndale, can supply Railroad Companies, Merchants and others, at the wholesale mill prices for bars of all sizes, sheets cut to order as large as 56 in. diameter; Railroad Iron, domestic and foreign; Locomotive tire welded to given size; Chairs and Spikes; Iron for shafting, locomotive and general machinery purposes; Cast, Shear, Blister and Spring Steel; Boiler rivets; Copper; Pig iron, etc., etc.

MORRIS, JONES & CO.,

Iron Merchants,

Schuylkill 7th and Market Sts., Philadelphia.
August 16, 1849. 1y33

Bowling Iron. Stamped B.O.

Railway Tire Bars
Locomotive and other Axles
Boiler Plates
Rivet Iron
Locomotive Frame do
Bars,
and every other description of this superior Iron.

The subscribers, agents for the sale of Bowling Iron, are prepared to execute orders for importation, especially for railway and machinery uses, with despatch from the manufacturers.

RAYMOND & FULLERTON, 45 Cliff st.

**Ibbotson, Brothers & Co's
CELEBRATED CAST STEEL**

AND

Best Cast Steel Royal Improved Files, well known as better adapted for Engineers' and Machinists' purposes than any now in use in the United States.

Every description of Square, Octagon, Flat and Round Cast Steel, Sheet, Shovel and Railway Spring Steel, etc., and Steel to order for any purposes—manufactured at their works in Sheffield—and universally known by the old stamp "Globe."

HENRY I. IBBOTSON, Agent,
218 Pearl st., New York.

**Smith & Tyson,,
IRON COMMISSION MERCHANTS,
BALTIMORE.**

REFINED Juniata Charcoal Billet Iron for Wire.
Do. for Bridging, of great strength.

Flat Rock, Boiler and Flue Iron, rolled to pattern.
Elba, Wheel Iron of great strength and superior chilling properties. Elba Forge Iron, American Shot Iron, Cut Nails, Spikes and Brads, Nail and Spike rods, Railroad Spikes of superior quality, Wrought Chair plates of any pattern, punched or plain.

**WILLIAM JESSOP & SONS'
CELEBRATED CAST-STEEL.**

The subscribers have on hand, and are constantly receiving from their manufactory.

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon.
Best warranted Cast Steel—square, flat and octagon.
Best double and single Shear Steel—warranted.
Machinery Steel—round.

Best and 2d gy. Sheet Steel—for saws and other purposes.

German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.

Genuine "Sykes" L. Blister Steel.

Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by

WM. JESSOP & SONS,

91 John street, New York.

Also by their Agents—

Curtis & Hand, 47 Commerce street, Philadelphia.

Alex'r Fullerton & Co., 119 Milk street, Boston.

Stickney & Beatty, South Charles street, Baltimore.

May 6, 1848.

Railroad Iron.

B. O. Railway Tires, Railway Wheels,
Scotch Pig Iron, Tin Plates and Banca Tin,
Muntz Patent Metal Sheathing,
Baltimore Copper.

Contracts for Rail's made on behalf of the manufacturers, for delivery at any ports in the United States, at fixed prices.

Bowling Tires and Tire Bars and Scotch Pigs imported to order.

Muntz's Ship-sheathing, and a general stock of Tin Plates and Banca Tin in store, and for sale by

RAYMOND & FULLERTON, 45 Cliff st.

IRONDALE PIG METAL, MANUFACTURED
and for sale by the Bloomsburg Railroad Iron Co.

LINDLEY FISHER, Treasurer.

75 N. Water St., Philadelphia.

Car Wheel Iron.

THE celebrated cold blast "Conowingo" Pig Iron, for Railroad Wheels, Chilled Rolls, etc., for sale by

E. PRATT & BROTHER,

Baltimore, Md.

Railroad Iron.

3,000 TONS C. L. MAKE 63½ lbs. per yard, now landing and to arrive.

Also contracts made for future delivery of above superior make English Iron.

300 Tons Banks Best Iron, Round, Square and Flat.
200 " English Bar " " " "

10 " 9-16 Square Iron for Railroad Spikes.

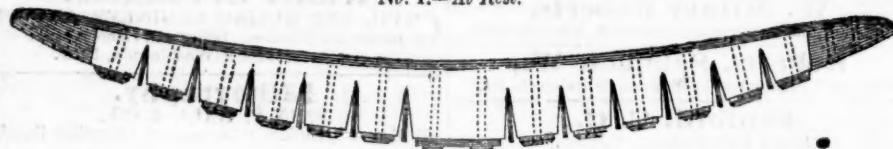
For sale in lots to suit purchasers by

DAVID W. WETMORE.

New York, March 26, 1850.

**PATENT EXCELSIOR SPRING
for Railroad Cars, Locomotives, etc.**

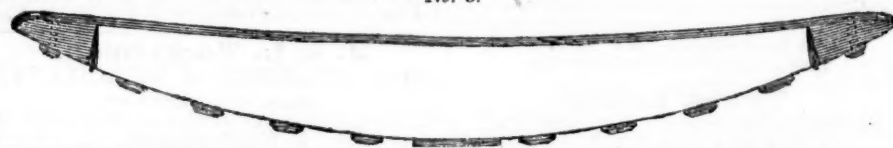
No. 1.—At Rest.



No. 2.—Under Heavy Pressure.



No. 3.



THESE Springs are composed of a Plate of Steel with Oak or Ash Wood, firmly riveted thereto, having saw kerfs in which are inserted flat plates of metal. The Spring is very powerful and yet sensitive. They are now being manufactured and sold by the Excelsior Spring Company, under a Patent granted on 20th May, 1851.

The above Drawing, No. 1, represents a side view of the Spring when it is at rest. No. 2, shows the same when under heavy pressure. No. 3, represents a Spring having only two plates instead of the usual number inserted in the wood.

This is undoubtedly the best Spring of the day—it is very simple—easy of application—light—cannot get out of order—and it is without any exception the most adjustable spring now made—for it will spring fifty

or five thousand pounds with the same ease.

The cost of the springs is very much less than that of any other.

The Excelsior Spring Co., determined that every spring shall be of the best quality, have established a Factory, where each spring is made directly under the eye of Mr. Bissell, the inventor—and before a spring is allowed to leave the factory it is subjected to a much severer test than it ever can be when at work. Each Spring is guaranteed to perform the required work.

Any person infringing on this patent will be prosecuted.

Office of EXCELSIOR SPRING COMPANY.

33 Broadway, New York.

June 7, 1851.

Railroad Spikes, Boiler Rivets, etc.

THE Subscribers, Agents for the sale of James S. Spencer's, Jr., Railroad and Boat Spikes, Boiler Rivets, and Wrought Iron Chairs for Railroads, made at his Works near this city, will execute all orders with promptness, despatch, and of the best quality.

ALSO IMPORTERS of English refined and Merchant bar Iron; Extra refined Car and Locomotive Axles (from 3½ to 6½ inches in diameter); B. O. Locomotive Tire (welded by Baldwin). Also, supply Boiler and Flue Iron cut to pattern or otherwise.—Spring, Shear, and Cast Steel, etc., etc., etc.

T. & E. GEORGE,

Philadelphia, November 14, 1850.

Railroad Iron.

THE Undersigned, Agents for Manufacturers, are prepared to contract for the delivery of English, Welsh and Scotch Rails, of any pattern and weight, also for every description of English, Welsh, Scotch, and Swedish Iron, Railway Chairs and Spikes, Rivets, Bolts, Nuts, Washers, Chain Cables, Anchors, Tin Plates, German Spelter, Iron Castings, and every description of Machinery.

WILLIAM BIRD & CO.,

Iron and Tin Plate Merchants,

44 Wall st., New York.

And at 5 Martin's Lane, City, London,

and 140 Buchanan st. Glasgow.

July 27th, 1850.

Railroad Iron.

THE "Montour Iron Company" is prepared to execute orders for Rails of the usual patterns and weights, and of any required length not exceeding 30 feet per rail. Apply to

THOS. CHAMBERS, President,

66 Broadway, N. Y.,

Or to the Agents,

CHOUTEAU, MERLE & SANFORD,

NO. 51 New st., New York.

September, 1850.

Railroad Iron.

THE Undersigned, Agents for the Manufacturers, are prepared to contract to deliver free on board at shipping port in England, or at port of discharge in the United States, Rails of superior quality, and of such weight or pattern as may be required.

VOSE, PERKINS & CO.,

74 South St.

New York, June 1, 1851.

Railroad Iron.

1650 Tons, weighing about 61 lbs. per yard, 40 tons, weighing about 52 lbs. per yard, and 825 tons, weighing about 53½ lbs. per yard, of the latest and most approved patterns of T rail, for sale by

BOORMAN, JOHNSTON & CO.,

119 Greenwich street.

New York, Aug. 26, 1850.

N.B.—B. J. & Co are also prepared to take contracts for English rails, delivered in any of the Atlantic ports of the United States.

Tredegar Iron Works.

ROLLING MILL FOUNDRY AND MACHINE

SHOPS. The undersigned continues to manufacture at his Works in this city (from best charcoal metal) Bar Iron of every description, embracing—

Rounds and Squares, from ½ to 5 inches diameter.

Flats, from ½ to 7 inches, all thicknesses.

Bands and Scrolls, all sizes. Boiler plate and Plough

Iron. Railroad and Locomotive Axles and Tires. Locomotive Frames, Spikes and Plates. Hoops, Ovals,

Half Ovals, Half Rounds, Angle, T, L, and indeed every description of Iron usually manufactured, all of

which he warrants to be equal to any made in this country. He also manufactures at his Foundry and

Machine Shops all descriptions of Railroad Work, say, Locomotives, Railroad Wheels and Axles complete

and ready for the road, Railroad Chairs, etc. Also, Marine and Stationary Engines all sizes, Sugar mills

and Engines, Horse mills, and every kind of Machinery usually required for the operations of the country.

He has paid particular attention to getting up machinery, etc., for Gold Mine operations, and those in want

of such work might find it to their advantage to give him a call.

J. R. ANDERSON.

Richmond, Va., Sept. 10, 1850.

CUT NAILS OF BEST QUALITY, BAR IRON

(including Flat Rails) manufactured and for sale by

FISHER, MORGAN & CO.,

75 N. Water St., Philadelphia.

TO RAILROAD COMPANIES, CAR MANUFACTURERS, etc.

THE Undersigned hereby gives public notice, that

the Commissioner of Patents, pursuant to his decision in relation thereto, on the 8th day of October,

1850, issued to him a Patent for the sole right to manufacture, and exclusive use of the INDIA RUBBER

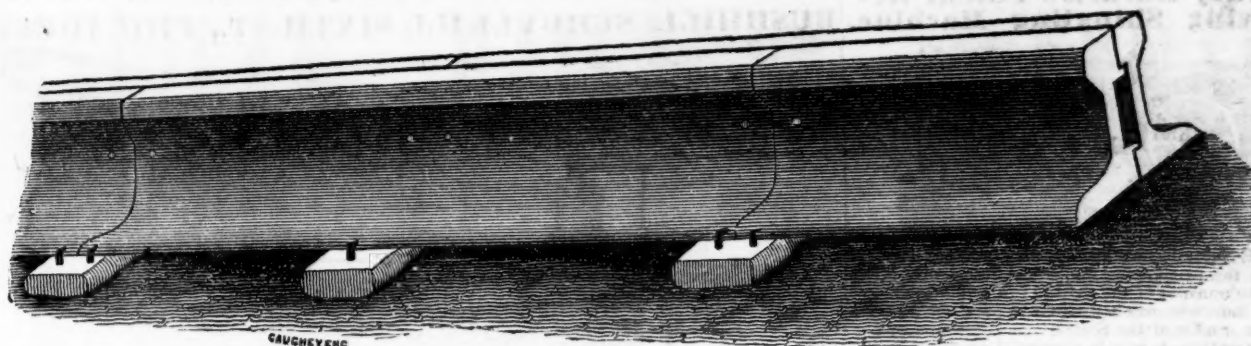
CAR SPRING, on account of priority of invention

of said Spring.

F. M. RAY.

New York, Oct. 23, 1850.

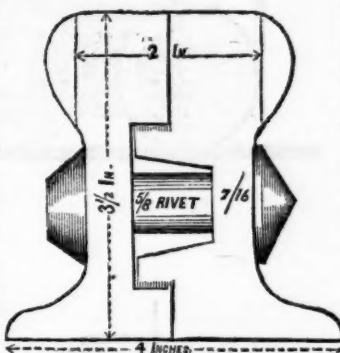
PATENT COMPOUND RAIL.



THE UNDERSIGNED NOW OFFER TO THE Railroad Public a new Compound Railroad Bar, which possesses, as they believe, a decided superiority over every kind now in use. The Cuts annexed will give a good idea of the form of the Rail, and the mode of combination.

This Rail has now been in use on the New York and Erie and the Utica and Schenectady Railroads for nearly two years, and has proved itself to be a *durable* and *continuous* rail, realizing the advantages of a theoretically perfect rail, over the one in common use. We invite the attention of Railroad Companies to a careful examination of the merits of the form now offered.

The advantages of this Rail are: first, it effects a saving of from 25 to 50 per cent. in the wear and tear of the machinery; secondly, it saves to a vastly greater extent in the repairs of track; thirdly, it secures a much higher rate of speed with the same power; and what is of still



greater importance, it offers complete protection against most of the accidents to which companies are liable. For these reasons, it is believed to be not only the best, but the cheapest rail that can be used. In enumerating its advantages, the proprietors only repeat the statements of competent persons, who have had the best opportunities of judging of its merits.

This improved Rail is now being manufactured at the Works of the Mount Savage Iron Co. in Maryland. Any communications or enquiries addressed to either of the undersigned will receive prompt attention.

J. F. WINSLOW, President,
Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore.

April 8, 1851.

N.B.—Patterns of the above rail are placed with Mr. A. V. Winslow, Cincinnati, Ohio, who is authorised to negotiate with parties for the same.

Faggotted Car and Engine Axles

FORGED by RANSTEAD, DEARBORN & Co., Boston, Mass. These Axles enjoy the highest reputation for excellence, and are all warranted.

Iron Trade of Pennsylvania.

DOCUMENTS and Statistics relating to the Manufacture of Iron in the State of Pennsylvania—giving a history of the manufacture from its commencement to this date, illustrated by diagrams. Also tables giving the address and capacity of every establishment in the State. Prepared by direction of the late convention of the trade held in Philadelphia. For sale by

LINDSAY & BLACKISTON, Philadelphia.
FIELDING LUCUS, Jr., Baltimore.
HENRY G. NICHOLS, 79 Water st., N. Y.

It will be sent by mail to any order enclosing the money, and post paid.

Ulster Iron.

THE ULSTER IRON WORKS, Saugerties, N. Y., continue in full operation. Orders for round, square, flat, band, hoop and scroll iron, will be received and promptly executed by

J. & L. TUCKERMAN,
69 West St., New York.

India-rubber for Railroad Cos.

RUBBER SPRINGS—Bearing and Power—Fuller's Patent—Hose from 1 to 12" diameter Suction Hose. Steam Packing from 1-16 to 2 in thick. Rubber and Gutta Percha Bands. These articles are all warranted to give satisfaction, made under Tyer & Helm's patent, issued January, 1849. No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all respects better than any in use. Proprietors of rail roads do not be overcharged by pretenders.

HORACE H. DAY,
Warehouse 23 Courtlandt street
New York, May 21, 1849.

Railroad Iron.

2000 TONS T RAILS, of desirable pattern, arrived, and to arrive, for sale by
RAYMOND & FULLERTON,
6421 45 Cliff st.

Railroad Iron.

THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, President,
Troy, N. Y.
ERASTUS CORNING, Albany
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md

November 6, 1848.

Railroad Iron.

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phoenix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehanna river; which two establishments are now turning out upwards of 1800 tons of finished rails per month.

Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.
45 North Water St. Philadelphia.

March 15, 1849

LAP—WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,
FROM ONE AND A QUARTER TO SEVEN
INCHES IN DIAMETER.

THE ONLY Tubes of the same quality and manufacture as those so extensively used in England Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER & SON, Patentees,
28 Platt street, New York.

AMERICAN PIG IRON.

"POUGHKEEPSIE" brand, Dutchess Co., N. Y.
"GLENDALE" brand, Lehigh county, Pa.
Orders for the above two well known brands will be received, and promptly executed, by
J. & L. TUCKERMAN,
69 West St., New York.

American Cast Steel.

THE ADIRONDAC STEEL MANUFACTURING CO. is now producing, from American iron, at their works at Jersey City, N. J., Cast Steel of extraordinary quality, and is prepared to supply orders for the same at prices below that of the imported article of like quality. Consumers will find it to their interest to give this a trial. Orders for all sizes of hammered cast steel, directed as above, will meet with prompt attention.

May 28, 1849.

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for rail roads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, Agent,
Albany Iron and Nail Works, Troy, N. Y.
The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Merrill & Co., New York; E. Pratt & Br. & Co., Baltimore Md

Stickney & Beatty, DEALERS IN IRON AND IRON MANUFACTURERS.

AGENTS for the Baltimore City Rolling Mill (Works of Messrs. Ellicott) also agents for the sale of the Laurel, Locust Grove and Gunpowder (Balt.) Forge Pig Irons; Hupp's Cold Blast Columbia Wheel Iron, Fort and anti-Eatam Pig Irons. Caledonia, Columbia and Capon Cold Blast Boiler Blooms, warranted; Wm. Jessop & Son's Steel; Old Colony and anti-Eatam Nails; Bar Iron, Boiler Plates, Hoop, Sheet, Oval, Half Oval, Horse Shoe and other Iron. Exchange Place, Baltimore.

Railroad Iron.

2000 Tons, weighing 58 pounds per lineal yard, of the most approved pattern of T rails, in store and to arrive, for sale by
COLLINS, VOSE & CO.
74 South St.

New York, June 1, 1850.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phoenixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has given universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll sounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y.

P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery for making Spikes, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, Agent,
Troy Iron and Nail Factory, Troy, N. Y.

CHILLED RAILROAD WHEELS.—THE UNDERSIGNED are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St., below 13th,
Philadelphia, Pa.

Brown's Old Established SCALE WARE HOUSE,
NO. 234 WATER ST., NEW YORK.

THE Subscriber, Practical Manufacturer of Scales of every description, respectfully asks the attention of Railroad Companies to his Improved Wrought Iron Railroad Track and Depot Scales which for strength, durability, accuracy, convenience in weighing, and beauty of workmanship, are not surpassed by any others in this country.

He is aware that this is rather a bold assertion for him to make, yet he can say with confidence that they have but to be tried to give them precedence over all others.

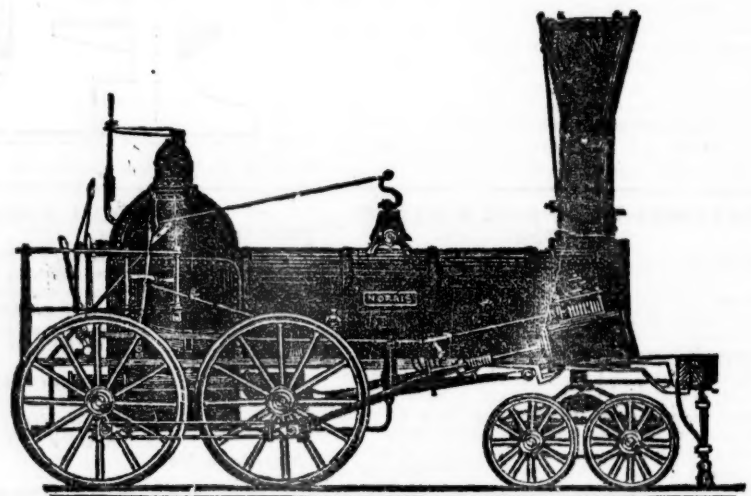
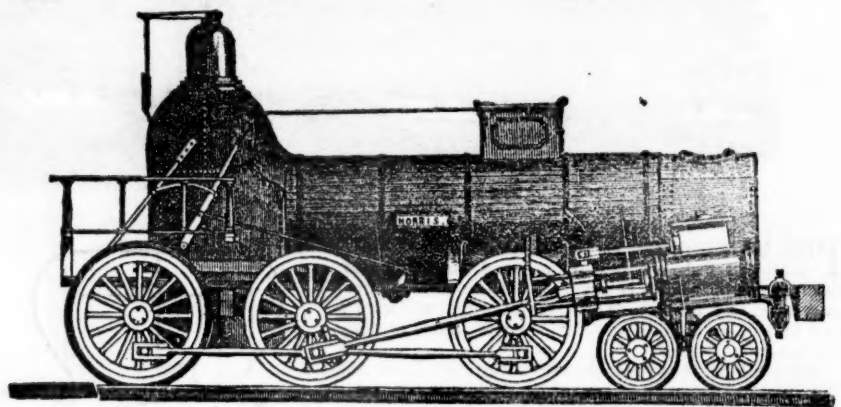
J. L. BROWN.

Bank Scales made to order, and all Scales of this make Warranted in every particular.

Reference given as required

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tyres are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, Agent,
Troy Iron and Nail Factory, Troy, N. Y.

Etna Safety Fuse.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS & BROTHER,

Sole Manufacturers,

No. 85 Liberty St.

NEW YORK.

And in the principal cities and towns in the U. States. The Premium of the AMERICAN INSTITUTE was awarded to the Etna Safety Fuse at the late Fair held in this city.

November 3, 1849.

ly

UNION WORKS,

North street, opposite the Railroad Depot,
BALTIMORE.

Poole & Hunt,

Manufacturers of Steam Engines and Mill Gearing, Machinists' Tools, and all kinds of heavy and light Machinery.

Also put up Arrangements of Wrought Iron Pipes for heating buildings and conveying steam or water. Castings of every kind furnished at short notice.

Every exertion will be made to insure the satisfaction of customers.

Patent Machine Picket Fence

SIX DIFFERENT STYLES of this fence are now made by patent machinery; and is by far the most economical fence for Railroads, Farms, Yards, etc., ever yet offered to the public, costing only from 4 to 30 cents per foot, according to pattern; and is so put up as to be shipped at a trifling expense. Full particulars will be furnished, by addressing the subscriber, to whom all orders should be sent.

N. STRATTON, Troy N.Y.